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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	4	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	5	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	6	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	7	MAR 02	GBFULL: New full-text patent database on STN
NEWS	8	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
NEWS	17	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/Caplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	18	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/Caplus
NEWS EXPRESS			JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:00:07 ON 11 MAY 2005

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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0.21

FILE 'REGISTRY' ENTERED AT 12:00:18 ON 11 MAY 2005

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STRUCTURE FILE UPDATES: 10 MAY 2005 HIGHEST RN 850201-14-8

DICTIONARY FILE UPDATES: 10 MAY 2005 HIGHEST RN 850201-14-8

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Crossover limits have been increased. See HELP CROSSOVER for details.

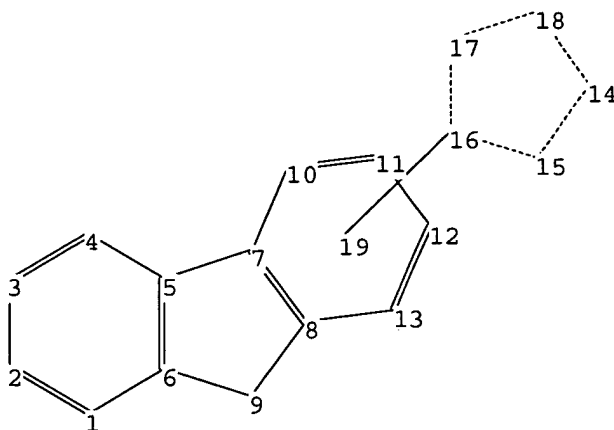
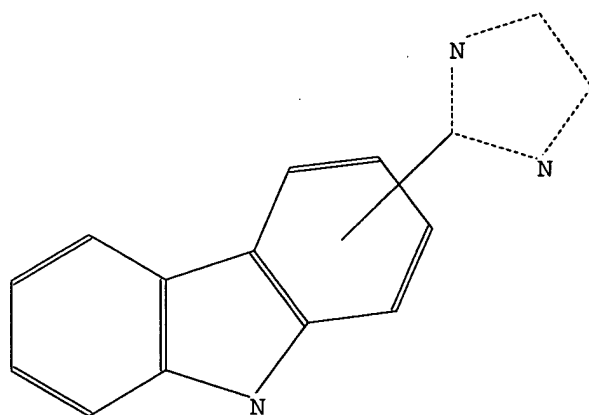
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\107249621.str

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ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13
14-15 14-18 15-16 16-17 17-18

exact/norm bonds :

5-7 6-9 8-9 14-15 14-18 15-16 16-17 17-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

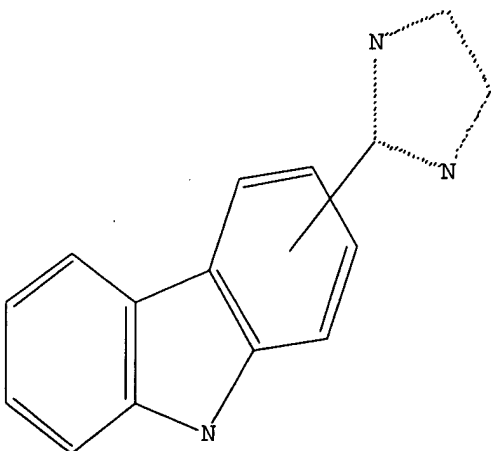
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



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Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 12:00:41 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 18032 TO ITERATE

5.5% PROCESSED 1000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 352601 TO 368679
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 12:00:47 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 361562 TO ITERATE

100.0% PROCESSED 361562 ITERATIONS 74 ANSWERS
SEARCH TIME: 00.00.03

L3 74 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	161.33	161.54

FILE 'CAPLUS' ENTERED AT 12:00:58 ON 11 MAY 2005
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FILE COVERS 1907 - 11 May 2005 VOL 142 ISS 20
FILE LAST UPDATED: 10 May 2005 (20050510/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

L4 38 L3

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=> d ibib abs hitstr tot

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L4 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN
 ACCESSION NUMBER: 2005:324127 CAPLUS
 DOCUMENT NUMBER: 142:373841
 TITLE: Preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria
 INVENTOR(S): Tidwell, Richard R.; Boykin, David; Brun, Retor Stephens, Chad E.; Kumar, Arvind
 PATENT ASSIGNEE(S): University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation, Inc.
 SOURCE: PCT Int. Appl., 82 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

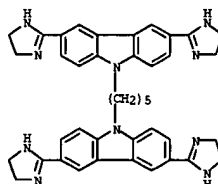
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033065	A1	20050414	WO 2003-US27963	20030905
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPL. INFO.: WO 2003-US27963 20030905
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Novel amidine and diamidine compds. (1st of 7 claimed Markush formulas shown as I variables defined below e.g. 4,4'-bis(6-amidinobenzimidazol-2-yl)-1,2-diphenylethane tetrahydrochloride (II)) may be useful in the treatment of microbial infections, including mycobacterial, fungal and protozoal infections. Pharmaceutical formulations comprising these compds. can be used in methods of treating microbial infections. Neither pharmacol. activity nor therapeutic use is claimed, but the effectiveness of 11 examples of the claimed compds. against Trypanosoma rhodesiense and Plasmodium falciparum is tabulated. Although the methods of preparation are not claimed, 9 example preps. of claimed compds. and intermediates are included. For example, II was prepared (64 %) from 4,4'-diformyl-1,2-diphenylethane, 4-amidino-1,2-phenylenediamine hydrochloride hemihydrate and 1,4-benzoquinone in EtOH. For I: X' and X'' = alkyl, alkylene, O, oxy, oxyalkyl, alkoxy, alkoxyalkyl, and -C(O)NH(CH₂)_q-r, m, n, p, and q = 0-10; L = hydroxyalkyl, 1,2-oxazole, 1,3-oxazole, Ph, naphthyl, pyrimidine, alkyl-substituted pyrimidine and -CH(CO₂R₁₁)- (R₁₁ = H or alkyl); R₁-R₁₀ = H, alkyl, hydroxy, oxyalkyl, alkoxy, halo, aryl, and Y, wherein at least one of R₁-R₁₀ = Y, and Y = -C(=NR₁₂)NR₁₃R₁₄,

L4 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)
 -CH=NRHC(=NR₁₂)NR₁₃R₁₄, and -NHC(=NR₁₂)NR₁₃R₁₄ (R₁₂ = H, hydroxy, cycloalkyl, aryl, aralkyl, alkoxy, hydroxycycloalkyl, alkoxyalkyl, hydroxyalkyl, aminoalkyl, acyloxy, and alkylaminoalkyl; R₁₃ and R₁₄ = H, hydroxy, alkyl, alkoxyalkyl, cycloalkyl, aryl, aralkyl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl; or R₁₂ and R₁₃ together = C₂-C₁₀ alkyl, hydroxyalkyl, or alkylene; or R₁₂ and R₁₃ together = (R₁₅)_j-substituted o-phenylene (j = 1-3, and R₁₅ is H or Y)).
 IT 500714-08-9P, 1,5-Bis[3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9H-carbazol-9-yl]pentane
 RI: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (drug candidate: preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria)
 RN 500714-08-9 CAPLUS
 CN 9H-Carbazole, 9,9'-(1,5-pentanediy)bis[3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)]

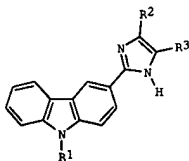


REFERENCE COUNT: 1
 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN
 ACCESSION NUMBER: 2004:513334 CAPLUS
 DOCUMENT NUMBER: 141:71543
 TITLE: Preparation of carbazole derivatives as NPY-5 antagonists
 INVENTOR(S): Elliott, Richard L.
 PATENT ASSIGNEE(S): Pfizer Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 20 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

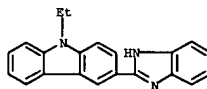
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004122046	A1	20040624	US 2003-724962	20031201
WO 2004055002	A1	20040701	WO 2003-1B5859	20031209
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPL. INFO.: MARPAT 141:71543
 OTHER SOURCE(S):
 GI

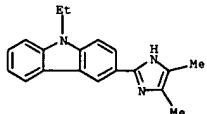


AB The title NPY-5 receptor antagonists I [R₁ = H, alkyl; R₂ = H, alkyl, aryl, 5-6 membered heteroaryl containing 1-3 heteroatoms selected from O, N, S; R₃ = H, alkyl, haloalkyl; or R₂ and R₃ taken together form (un)substituted 6-membered heterocyclyl optionally containing 1-2 N ring atoms, 6-membered aryl], were prepared. Thus, reacting 9-ethyl-9H-carbazole-3-carboxaldehyde with 1-phenyl-1,2-propanedione and ammonium acetate in glacial AcOH afforded I [R₁ = Et; R₂ = Ph; R₃ = Me] which showed KI of 15 nM against human NPY-5 receptor binding. Methods and pharmaceutical compns. useful for treating diseases, conditions and/or disorders modulated by the above NPY-5 receptor antagonists I are also provided.
 IT 173463-46-2P 596821-99-7P 596822-00-3P

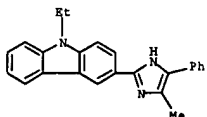
L4 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)
 596822-01-4P 596822-02-5P 596822-03-6P
 596822-04-7P 711010-83-2P 711010-84-3P
 RI: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of carbazole deriva. as NPY-5 antagonists)
 RN 173463-46-2 CAPLUS
 CN 9H-Carbazole, 3-(1H-benzimidazol-2-yl)-9-ethyl- (9CI) (CA INDEX NAME)



RN 596821-99-7 CAPLUS
 CN 9H-Carbazole, 3-(4,5-dimethyl-1H-imidazol-2-yl)-9-ethyl- (9CI) (CA INDEX NAME)



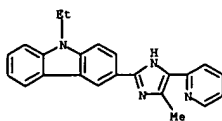
RN 596822-00-3 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(4-methyl-5-phenyl-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



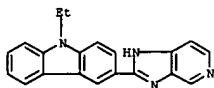
RN 596822-01-4 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-[4-methyl-5-(2-pyridinyl)-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

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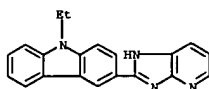
L4 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



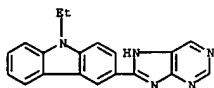
RN 596822-02-5 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1H-imidazo[4,5-c]pyridin-2-yl)- (9CI) (CA INDEX NAME)



RN 596822-03-6 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1H-imidazo[4,5-b]pyridin-2-yl)- (9CI) (CA INDEX NAME)



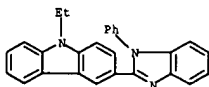
RN 596822-04-7 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1H-purin-8-yl)- (9CI) (CA INDEX NAME)



RN 711010-83-2 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(4-phenyl-5-(trifluoromethyl)-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

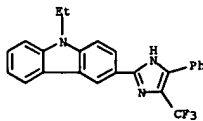
L4 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:431623 CAPLUS
 DOCUMENT NUMBER: 141:140588
 TITLE: Highly Phosphorescent Bis-Cyclometalated Iridium Complexes Containing Benzimidazole-Based Ligands
 AUTHOR(S): Huang, Wei-Sheng; Lin, Jiann T.; Chien, Chin-Hsing; Tao, Yu-Tai; Sun, Shih-Sheng; Wen, Yuh-Sheng
 CORPORATE SOURCE: Department of Chemistry, National Central University, Chungli, Taiwan, 320, Peop. Rep. China
 SOURCE: Chemistry of Materials (2004), 16(12), 2480-2488
 CODEN: CHATEX; ISSN: 0897-4756
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:140588
 AB New benzimidazoles (bi) have been synthesized. These compds. readily undergo cyclometalation with iridium trichloride, and bis-cyclometalated iridium complexes, (bi)2Ir(acac) (bi = cyclometalated benzimidazole; acac = acetylacetonate), can be isolated. One of the complexes, (fbi)2Ir(acac) (fbi = 2-(9,9-diethyl-9H-fluoren-2-yl-1H-benzimidazole)), was also characterized by single-crystal x-ray structural determination. Some of the complexes, (bi)2Ir(acac), are highly phosphorescent at ambient condition. Light-emitting devices using these complexes as dopants were fabricated, and the emission colors range from green to red. Some green- and yellow-emitting devices exhibit very high efficiencies.
 IT 725251-18-3P
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); FRP (Properties); RCT (Reactant); SPH (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent) (preparation of highly phosphorescent bis-cyclometalated iridium complexes containing benzimidazole-based ligands)
 RN 725251-18-3 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1-phenyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

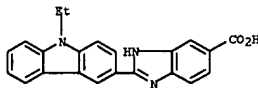


REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

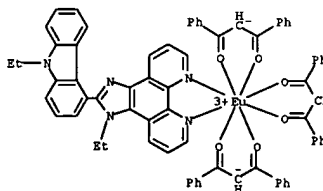


RN 711010-84-3 CAPLUS
 CN 1H-Benzimidazole-5-carboxylic acid, 2-(9-ethyl-9H-carbazol-3-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:257767 CAPLUS
 DOCUMENT NUMBER: 141:44623
 TITLE: Voltage-independent pure red devices based on a carbazole-functionalized europium complex
 AUTHOR(S): Xin, Hao; Sun, Min; Wang, Ke Zhi; Zhang, Yong An; Jin, Lin Pei; Huang, Chun Hui
 CORPORATE SOURCE: State Key Laboratory of Rare Earth Materials Chemistry and Applications, Department of Chemistry, Peking University, Beijing, 100871, Peop. Rep. China
 SOURCE: Chemical Physics Letters (2004), 388(1-3), 55-57
 CODEN: CHPLBC; ISSN: 0009-2614
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Electroluminescent properties of carzole-functionized complex tris(dibenzoylmethanato)(1-ethyl-2-(N-ethyl-carbazole-yl-4)imidazo[4,5-f][1,10]phenanthroline)europium(III) (Eu(DBM)3Phencarz) was studied. By using complex tris(1-phenyl-3-methyl-4-isobutyl-5-pyrazolone)-bis(tri-Ph phosphine oxide) Gd Gd(PMIP)3(TPPO)2 as electron-transport layer, hole and electron injection was relatively balanced in the emitting layer and a device with the configuration of ITO/TPD (20 nm)/(Eu(DBM)3Phencarz) (40 nm)/Gd(PMIP)3(TPPO) (20 nm)/AlQ (30 nm)/Mg:Ag emitted voltage-independent characteristic Eu light with the luminance of 1193 cd/m2, power efficiency 1.68 lm/W.
 IT 625457-04-7
 RL: DEV (Device component use); FRP (Properties); USES (Uses) (voltage-independent pure red devices based on a carbazole-functionalized europium complex)
 RN 625457-04-7 CAPLUS
 CN Europium, tris(1,3-diphenyl-1,3-propanedionato-κO,κO') [1-ethyl-2-(9-ethyl-9H-carbazol-4-yl)-1H-imidazo[4,5-f][1,10]phenanthroline-κN7,κN8]- (9CI) (CA INDEX NAME)



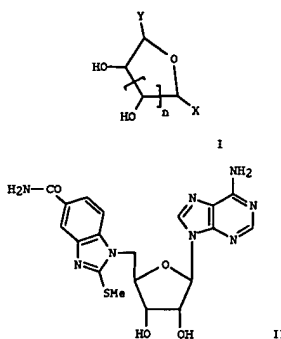
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10724962

L4 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:220344 CAPLUS
 DOCUMENT NUMBER: 140:253815
 TITLE: Preparation of nucleoside analogs as protein kinase inhibitors
 INVENTOR(S): Meutermans, Wim; Schafer, Karl; West, Michael Leo; Muldoon, Craig; Foley, Fiona; Bouloc, Natalie; Tometzki, Gerald
 PATENT ASSIGNER(S): Alchemia Pty Ltd, Australia
 SOURCE: PCT Int. Appl., 132 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022572	A1	20040318	WO 2003-AU1146	20030905
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CH, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPL. INFO.:		MARPAT 140:253815	AU 2002-951247	A 20020906
OTHER SOURCE(S):		GI		

L4 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

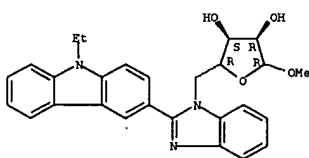


AB A method of inhibiting or effecting the activity of protein kinase activity which comprises contacting a protein kinase with nucleoside analogs I, wherein n is 1, 2; X is selected from the group consisting of: OR1, an unsubstituted 5 or 6 membered heterocyclic moiety, a substituted 5 or 6 membered heterocyclic moiety, an unsubstituted 9 or 10 membered hetero-bicyclic moiety and a substituted 9 or 10 membered hetero-bicyclic moiety, R1 is selected from the group consisting of: alkyl, alkenyl, alkynyl, heteroalkyl, aryl, heteroaryl, arylalkyl and hetero-arylalkyl, Y is selected from the group consisting of an unsubstituted 5 or 6 membered heterocyclic moiety, a substituted 5 or 6 membered heterocyclic moiety, an unsubstituted 9 or 10 membered hetero-bicyclic moiety and a substituted 9 or 10 membered hetero-bicyclic moiety; an amino acid, a dipeptide, is being a derivative of a furanose or pyranose form of a monosaccharide, or a pharmaceutically acceptable salt thereof. Thus, nucleoside II was prepared and tested in vitro as protein kinase inhibitor.

IT 671785-28-7P 671785-52-7P 671785-53-8P
 671786-11-1P
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of nucleoside analogs as protein kinase inhibitors)
 RN 671785-28-7 CAPLUS
 CN β -D-Ribofuranoside, methyl 5-deoxy-5-[2-(9-ethyl-9H-carbazol-3-yl)-1H-benzimidazol-1-yl]- (9CI) (CA INDEX NAME)

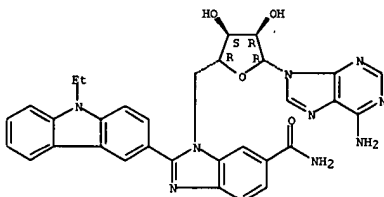
Absolute stereochemistry.

L4 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 671785-52-7 CAPLUS
 CN Adenosine, 5'-[6-(aminocarbonyl)-2-(9-ethyl-9H-carbazol-3-yl)-1H-benzimidazol-1-yl]-5'-deoxy- (9CI) (CA INDEX NAME)

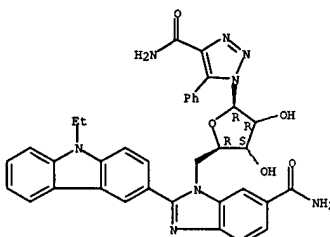
Absolute stereochemistry.



RN 671785-53-8 CAPLUS
 CN 1H-1,2,3-Triazole-4-carboxamide, 1-[6-[5-(aminocarbonyl)-2-(9-ethyl-9H-carbazol-3-yl)-1H-benzimidazol-1-yl]-5-deoxy- β -D-ribofuranosyl]-5-phenyl- (9CI) (CA INDEX NAME)

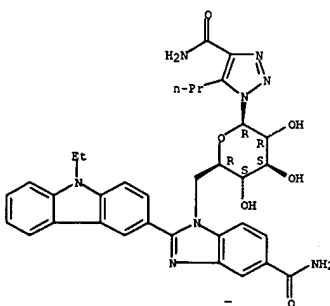
Absolute stereochemistry.

L4 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 671786-11-1 CAPLUS
 CN 1H-1,2,3-Triazole-4-carboxamide, 1-[6-[5-(aminocarbonyl)-2-(9-ethyl-9H-carbazol-3-yl)-1H-benzimidazol-1-yl]-6-deoxy- β -D-glucopyranosyl]-5-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

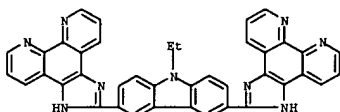
10724962

L4 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN
 ACCESSION NUMBER: 2004:106632 CAPLUS
 DOCUMENT NUMBER: 140:316714
 TITLE: The pH-induced Emission Switching and Interesting DNA-Binding Properties of a Novel Dinuclear Ruthenium(II) Complex
 AUTHOR(S): Liu, Furong; Wang, Kezhi; Bai, Guangyao; Zhang, Yongan; Gao, Lihua
 CORPORATE SOURCE: Department of Chemistry, Beijing Normal University, Beijing, 100875, Peop. Rep. China
 SOURCE: Inorganic Chemistry (2004), 43(5), 1799-1806
 CODEN: INOCAJ; ISSN: 0020-1669
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A novel dinuclear Ru(II) complex, [(bpy)2Ru(ebipch2)Ru(bpy)2](ClO4)4, where bpy = 2,2'-bipyridine and ebipch2 = N-ethyl-4,7-bis([1,10]-phenanthroline[5,6-f]imidazol-2-yl)carbazole, has been newly synthesized. The pH effects on UV-vis absorption and emission spectra of the complex are studied, and ground- and excited-state ionization consts. of the complex are derived. The binding of the complex to calf thymus (ct) DNA is investigated with absorption and luminescence titrns., steady-state emission quenching, and viscosity measurements. The complex acts as a pH-induced "on-off" emission switch between pH 8.0 and pH 10.0 with a maximum on-off ratio of .apprx.100 which is favorably compared with the other imidazole-containing Ru(II) complex congeners, and a strong ct-DNA intercalator with an intrinsic binding constant of 1.31(±0.08) × 10⁶ M⁻¹ in buffered 50 mM NaCl.
 IT 677291-56-4P
 RL: BSU (Biological study, unclassified); FRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (pH-induced emission switching and interesting DNA-binding properties of novel dinuclear ruthenium(II) complex)
 RN 677291-56-4 CAPLUS
 CM Ruthenium(4+), tetrakis(2,2'-bipyridine-κN1,κN1')[μ-[2,2'-(9-ethyl-9H-carbazole-3,6-diyl)bis(1H-imidazo[4,5-f][1,10]phenanthroline-κN7,κN8)]][di-], tetraperchlorate, compd. with methanol (1:2), monohydrate (9CI) (CA INDEX NAME)
 CH 1
 CRN 67-56-1
 CMF C H4 O

H3C-OH

CH 2
 CRN 677291-55-3
 CMF C80 H57 N17 Ru2 . 4 Cl O4
 CH 3

L4 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)
 IT 677007-63-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (pH-induced emission switching and interesting DNA-binding properties of novel dinuclear ruthenium(II) complex)
 RN 677007-63-5 CAPLUS
 CM 1H-imidazo[4,5-f][1,10]phenanthroline, 2,2'-(9-ethyl-9H-carbazole-3,6-diyl)bis- (9CI) (CA INDEX NAME)

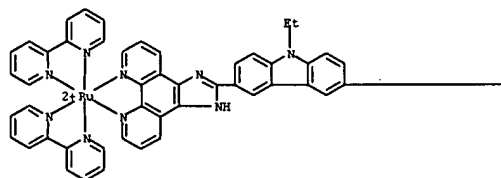


REFERENCE COUNT: 101 THERE ARE 101 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

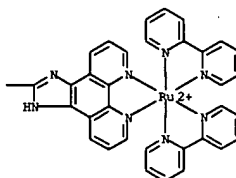
L4 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)

CRN 677291-54-2
 CMF C80 H57 N17 Ru2
 CCI CCS

PAGE 1-A



PAGE 1-B

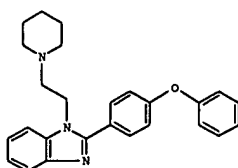
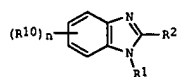


CH 4
 CRN 14797-73-0
 CMF Cl O4



L4 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2005 ACS ON STN
 ACCESSION NUMBER: 2004:101142 CAPLUS
 DOCUMENT NUMBER: 140:146139
 TITLE: Preparation of aryl-substituted benzimidazoles and their use as sodium channel blockers
 INVENTOR(S): Sun, Qun; Zhou, Xiaoming; Kyle, Donald J.
 PATENT ASSIGNEE(S): Euro-Celtique S.A., Luxembourg
 SOURCE: PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011439	A2	20040205	WO 2003-US23828	20030731
WO 2004011439	A3	20040401		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TH, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, ML, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2492305	AA	20040205	CA 2003-2492305	20030731
US 2004132777	A1	20040708	US 2003-630896	20030731
PRIORITY APPLN. INFO.: US 2002-399458P P 20020731				
OTHER SOURCE(S): CASREACT 140:146139; MARPAT 140:146139				
GI				



II

L4 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

AB Title compds. 1 [R1 = alkylene-amino; R2 = phenoxypheyl, benzylpophenyl, phenylthiophenyl, etc.; R10 = H, OH, alkyl, alkoxy, etc.; n = 0-4] are prepared For instance, 1-(2-aminoethyl)piperidine is reacted with 2-fluoronitrobenzene (DMF, 1-Pr2NET) to give 1-(2-(2-nitrophenylamino)ethyl)piperidine. This intermediate is reduced (MeOH, H2-10% Pd/C, 3 atm, 16 h) and reacted with various aldehydes (PhNO2) to give the corresponding benzimidazole, e.g., 11. Example compds. are potent blockers of the sodium channel, Ki = 180-1790 nM. 1 are useful for the treatment of neuronal damage following global and focal ischemia, for the treatment or prevention of neurodegenerative conditions such as amyotrophic lateral sclerosis (ALS) and for the treatment, prevention or amelioration of both acute or chronic pain.

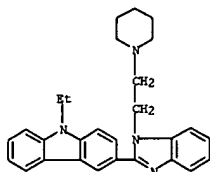
IT 653573-68-3P, 1-(2-Piperidinylethyl)-2-(N-ethylcarbazol-3-yl)benzimidazole

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aryl-substituted benzimidazoles and their use as sodium channel blockers)

RN 653573-68-3 CAPLUS

CN 9H-Carbazole, 9-ethyl-3-[1-(2-(1-piperidinyl)ethyl)-1H-benzimidazol-2-yl]-(9CI) (CA INDEX NAME)



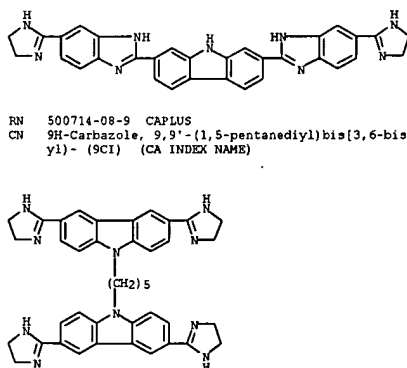
L4 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 200878-42-8 CAPLUS

CN 9H-Carbazole, 2,7-bis(5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl)-(9CI) (CA INDEX NAME)

RN 500714-08-9 CAPLUS

CN 9H-Carbazole, 9,9'-(1,5-pentanediy)bis[3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-(9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:991295 CAPLUS

DOCUMENT NUMBER: 140:35966

TITLE: Amidine derivatives for treating amyloidosis and neurodegenerative diseases

INVENTOR(S): Chalifour, Robert J.; Kong, Xianqi; Wu, Xinfu; Lu, Wenshuo; Tidwell, Richard R.; Boykin, David

PATENT ASSIGNEE(S): University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation, Inc.

SOURCE: PCT Int. Appl., 92 pp. CODEN: PIXX2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003103598	A2	20031218	WO 2003-US17992	20030609
V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2488493	AA	20031218	CA 2003-2488493	20030609
US 2004147531	A1	20040729	US 2003-731463	20031205
PRIORITY APPL. INFO.:				
			US 2002-387001P	P 20020607
			US 2001-316761P	P 20010831
			US 2002-234643	A1 20020903
			WO 2003-US17992	W 20030609

AB The present invention relates to the use of amidine compds. in the treatment of amyloid related diseases. In particular, the invention relates to a method of treating or preventing an amyloid-related disease in a subject comprising administering to the subject a therapeutic amount of an amidine compound. Among the compds. for use according to the invention are those according to the following Formulas, such that, when administered, amyloid fibril formation, neurodegeneration, or cellular toxicity is reduced or inhibited.

IT 200205-81-8 200878-42-8 500714-08-9

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

RN 200205-81-8 CAPLUS

CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-(9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:741331 CAPLUS

DOCUMENT NUMBER: 139:401289

TITLE: Carbazole-functionalized europium complex and its high-efficiency organic electroluminescent properties

AUTHOR(S): Xin, H.; Li, F. Y.; Guan, M.; Huang, C. H.; Sun, M.; Wang, K. Z.; Zhang, Y. A.; Jin, L. P.

CORPORATE SOURCE: State Key Laboratory of Rare Earth Materials Chemistry and Applications, Peking University, Beijing, Peop. Rep. China

SOURCE: Journal of Applied Physics (2003), 94(7), 4729-4731

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Tris(dibenzoylmethanato)(1-Et-2-(N-ethylcarbazolyl-4)imidazo(4,5-f)-1,10-phenanthroline)europium(III) [Eu(DEM)3phencaz] functionalized by a hole-transport group carbazole was synthesized. Devices using this complex as emitter showed greatly enhanced performance benefited from the increased hole-transport properties and efficient energy transfer from carbazole to the central ions. A 58-nm-single-layer device gave a brightness of 20 cd/m2 at 15 V. The highest power efficiency of 2.7 lm/W at 5 V and 0.5 cd/m2 and the luminance >2000 cd/m2 at 20 V was obtained from a device with the configuration of ITO/TPD(20 nm)/Eu(DEM)3phencaz(40 nm)/BCP(20 nm)/Alq(40 nm)/Mg0.9Ag0.1(200 nm)/Ag(80 nm).

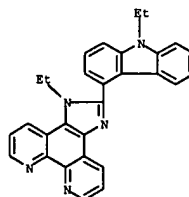
IT 625457-06-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and NMR and reaction with europium dibenzoylmethanato complex)

RN 625457-06-9 CAPLUS

CN 1H-Imidazo(4,5-f)[1,10]phenanthroline, 1-ethyl-2-(9-ethyl-9H-carbazol-4-yl)-(9CI) (CA INDEX NAME)



IT 625457-04-7P

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)

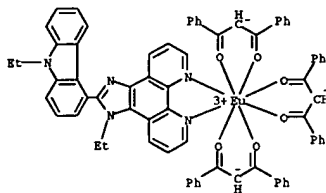
(preparation and electroluminescence of)

RN 625457-04-7 CAPLUS

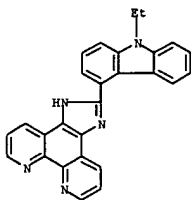
CN Europium, tris(1,3-diphenyl-1,3-propanedionato-κO,κO') [1-ethyl-2-(9-ethyl-9H-carbazol-4-yl)-1H-imidazo(4,5-f)[1,10]phenanthroline-κN7,κN8]-(9CI) (CA INDEX NAME)

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L4 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



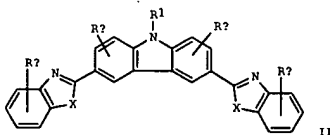
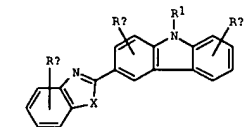
IT 625457-05-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and ethylation of)
 RN 625457-05-8 CAPLUS
 CN 1H-imidazo[4,5-f][1,10]phenanthroline, 2-(9-ethyl-9H-carbazol-4-yl)- (9CI)
 (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:532189 CAPLUS
 DOCUMENT NUMBER: 139:92577
 TITLE: Organic EL device
 INVENTOR(S): Lin, Tung-Shen; Yeh, Kun-Tay
 PATENT ASSIGNEE(S): Lighttronik Technology Inc., Taiwan
 SOURCE: U.S. Pat. Appl. Publ., 13 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

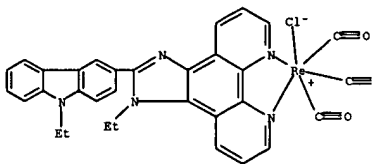
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003129448	A1	20030710	US 2001-982011	20011019
US 6602619	B2	20030805		
PRIORITY APPLN. INFO.:			US 2001-982011	20011019
OTHER SOURCE(S):		MARPAT 139:92577		



AB An organic EL device which contains an anode, a cathode, and at least one organic thin-film layer including a light emitting layer which contains a compound represented by I and II, wherein R1 represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aromatic hydrocarbon group, a substituted or unsubstituted aromatic heterocyclic group, a substituted or unsubstituted amino group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, or a substituted or unsubstituted alkoxycarbonyl group; and R2 is 21 functional groups represented by a H atom, halogen atom, nitro group, cyano group, carboxyl group, or R1. Any two R2 groups may form a ring. X represents O atom, N atom and S atom. A blue organic EL device can be provided according to the present invention.

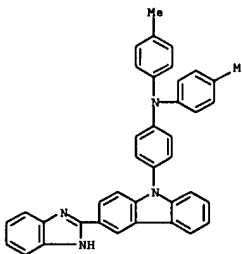
L4 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:673626 CAPLUS
 DOCUMENT NUMBER: 140:171779
 TITLE: Synthesis, characterization and photoelectric properties of a novel carbazole-containing Re(II) complex
 AUTHOR(S): Sun, Min; Xin, Hao; Zhang, Yong-An; Wang, Ke-Zhi; Jin, Lin-Pei; Huang, Chun-Rui
 CORPORATE SOURCE: Department of Chemistry, Beijing Normal University, Beijing, 100875, Peop. Rep. China
 SOURCE: Huaxue Xuebao (2003), 61(8), 1323-1325
 CODEN: HXHPA4; ISSN: 0567-7351
 PUBLISHER: Kexue Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 AB Carbazole-containing Re(CO)3ClL (L = 1-Et-2-(N-Et-carbazol-4-yl)imidazo[4,5-f]-1,10-phenanthroline) was characterized by elemental anal., FTIR, UV-visible, 1H NMR and emission spectroscopy, and cyclic voltammetry. The double-layer electroluminescence device of ITO/TPD (30 nm)/Re(CO)3ClL (10 nm)/MgO:9Ag0.1 (110 nm)/Ag (60 nm) fabricated by vacuum-deposition technique was found to emit bright orange-red light with a turn-on voltage of 5 V and a maximum luminance of 113 cd/m2 at a bias voltage of 9 V.
 IT 655224-05-8
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
 (characterization and photoelec. properties of)
 RN 655224-05-8 CAPLUS
 CN Rhenium, tricarbonylchloro[1-ethyl-2-(9-ethyl-9H-carbazol-3-yl)-1H-imidazo[4,5-f][1,10]phenanthroline-κN7,κN8]-, (OC-6-33)- (9CI)
 (CA INDEX NAME)

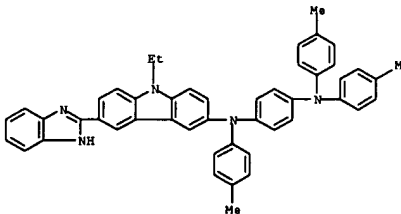


L4 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

IT 556826-24-5 556826-27-8 556826-30-3
 556826-33-6
 RL: DEV (Device component use); USES (Uses)
 (organic EL device with N-substituted carbazole in light-emitting layer)
 RN 556826-24-5 CAPLUS
 CN Benzenamine, 4-[3-(1H-benzimidazol-2-yl)-9H-carbazol-9-yl]-N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



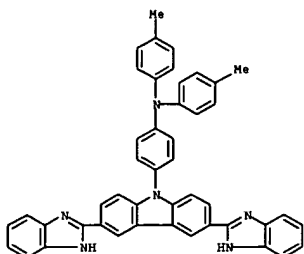
RN 556826-27-8 CAPLUS
 CN 1,4-Benzenediamine, N-[6-(1H-benzimidazol-2-yl)-9-ethyl-9H-carbazol-3-yl]-N,N',N'-tris(4-methylphenyl)- (9CI) (CA INDEX NAME)



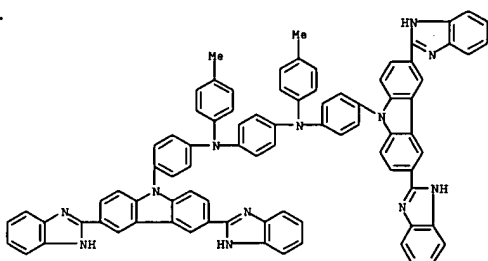
RN 556826-30-3 CAPLUS
 CN Benzenamine, 4-[3,6-bis(1H-benzimidazol-2-yl)-9H-carbazol-9-yl]-N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

10724962

L4 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 556826-33-6 CAPLUS
 CN 1,4-Benzenediamine, N,N'-bis[4-(3,6-bis(1H-benzimidazol-2-yl)-9H-carbazol-9-yl)phenyl]-N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:405934 CAPLUS
 DOCUMENT NUMBER: 139:245867

TITLE: Structure-activity relationships in a series of NPY Y5 antagonists: 3-amido-9-ethylcarbazoles, core-modified analogues and amide isosteres

AUTHOR(S): Hammond, Marlys; Elliott, Richard L.; Gillaspay, Melissa L.; Hager, David C.; Hank, Richard F.; LaFlamme, Janet A.; Oliver, Robert M.; Da Silva-Jardine, Paul A.; Stevenson, Ralph W.; Mack, Christine M.; Cassella, James V.

CORPORATE SOURCE: Department of Cardiovascular and Metabolic Diseases, Pfizer Global Research and Development, Groton, CT, 06340, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(12), 1989-1992

CODEN: BMCLES; ISSN: 0960-894X
 PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:245867

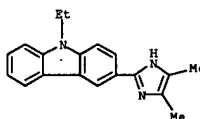
AB Beginning with carbazole, the amide and alkyl substituents were optimized to maintain potency while adding solubilizing groups. Efforts to replace the 3-amino-9-ethylcarbazole core, a known carcinogen, used the structure-activity relationships (SAR) generated in the carbazole series for guidance and led to the synthesis of a number of core-modified analogs. In addition, an isosteric series, in which the amide was replaced with an imidazole, was prepared. Two potent new series lacking the putative toxicophore were identified from these endeavors.

IT 596821-99-7P 596822-00-3P 596822-01-4P

596822-02-5P 596822-03-6P 596822-04-7P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (multi-step preparation and structure-activity relationships of amidoethylcarbazoles, core-modified analogs and amide isosteres as NPY Y5 antagonists)

RN 596821-99-7 CAPLUS

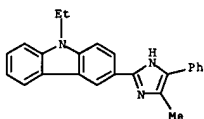
CN 9H-Carbazole, 3-(4,5-dimethyl-1H-imidazol-2-yl)-9-ethyl- (9CI) (CA INDEX NAME)



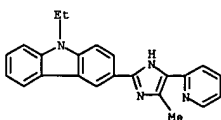
RN 596822-00-3 CAPLUS

CN 9H-Carbazole, 9-ethyl-3-(4-methyl-5-phenyl-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

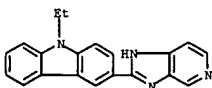
L4 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



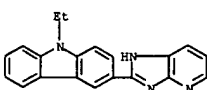
RN 596822-01-4 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(4-methyl-5-(2-pyridinyl)-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 596822-02-5 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1H-imidazo[4,5-c]pyridin-2-yl)- (9CI) (CA INDEX NAME)

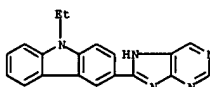


RN 596822-03-6 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1H-imidazo[4,5-b]pyridin-2-yl)- (9CI) (CA INDEX NAME)



RN 596822-04-7 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1H-purin-8-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



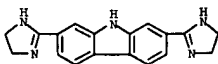
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10724962

L4 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:250479 CAPLUS
 DOCUMENT NUMBER: 140:38649
 TITLE: Application of molecular topology to the prediction of antifungal activity for a set of dication-substituted carbazoles, furans and benzimidazoles
 AUTHOR(S): Garcia-Domenech, R.; Rios-Santamarina, I.; Catala, A.; Calabuig, C.; del Castillo, L.; Galvez, J.
 CORPORATE SOURCE: Facultat de Farmacia, Unidad de Investigacion de Conectividad Molecular y Diseno de Farmacos, Departamento de Quimica Fisica, Universitat de Valencia, Valencia, Spain
 SOURCE: THEOCHEM (2003), 624, 97-107
 CODEN: THEODJ; ISSN: 0166-1280
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

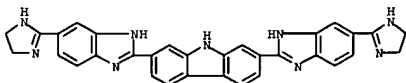
AB In this paper, the endpoint is the application of mol. topol. to the search of QSAR relations into a group of dication-substituted carbazoles, furans and benzimidazoles, all showing antifungal activity against *C. albicans*. Math. and statistical methods such as linear regression and discriminant anal., are used. The results clearly show a high efficiency of the formalism on the prediction and classification of antifungal activity. Some 83% of the compds. showing MIC <10 µg/mL (active group) are correctly classified, while 100% overall accuracy is achieved for those compds. showing MIC >100 µg/mL (inactive group).

IT 200205-81-8
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (3mol. topol. in relation to antifungal activity for a set of dication-substituted carbazoles, furans, and benzimidazoles)
 RN 200205-81-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

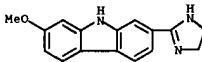


IT 200205-80-7 200878-35-9 200878-39-3
 200878-41-7 200878-42-8 200878-43-9
 200878-44-0 635683-36-2
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (mol. topol. in relation to antifungal activity for a set of dication-substituted carbazoles, furans, and benzimidazoles)
 RN 200205-80-7 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

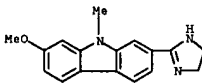
L4 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



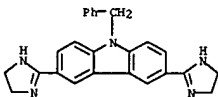
RN 200878-43-9 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-9-methyl- (9CI) (CA INDEX NAME)



RN 200878-44-0 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-9-methyl- (9CI) (CA INDEX NAME)

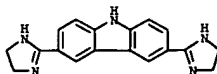


RN 635683-36-2 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-(phenylmethyl)- (9CI) (CA INDEX NAME)

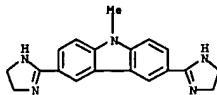


REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

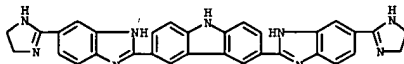
L4 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



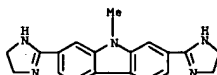
RN 200878-35-9 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)



RN 200878-39-3 CAPLUS
 CN 9H-Carbazole, 3,6-bis(5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 200878-41-7 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)



RN 200878-42-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis(5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:203407 CAPLUS
 DOCUMENT NUMBER: 138:238181
 TITLE: Preparation of substituted 1-cyclohexyl-2-phenylbenzimidazole-5-carboxylic acids as remedies for hepatitis C
 INVENTOR(S): Hashimoto, Hiromasa; Mizutani, Kenji; Yoshida, Atsuhito
 PATENT ASSIGNEE(S): Japan Tobacco Inc., Japan
 SOURCE: U.S. Pat. Appl. Publ., 406 pp., Cont.-in-part of Appl. No. PCT/JP00/09181.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003050320	A1	20030313	US 2001-939374	20010824
US 6770666	B2	20040803		
WO 2001047883	A1	20010705	WO 2000-JP9181	20001222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KH, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TH, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2001247550	A2	20010911	JP 2000-391904	20001225
ZA 2003001393	A	20040715	ZA 2003-1393	20020626
US 2004097438	A1	20040520	US 2003-615329	20030708
PRIORITY APPLN. INFO.:				
			JP 1999-369008	A 19981227
			WO 2000-JP9181	A2 20001222
			JP 2000-391904	A 20001225
			JP 2001-193786	A 20010626
			US 2001-939374	A3 20010824

OTHER SOURCE(S): MARPAT 138:238181
 GI

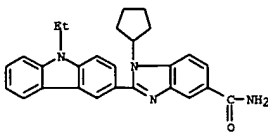
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. I [the dotted line in rings B1 and B2 indicates a single or double bond; G1 = N, CR1; G2 = N, CR2; G3 = N, CR3; G4 = N, CR4; G5, G6, G8, G9 = C, N; G7 = O, S, CR7, etc.; R1-R4 = H, NO2, etc.; ring Cy = (un)substituted cycloalkyl ring, etc.; ring A = Ph, cycloalkyl, etc. R5, R6 = H, halo, etc.; X = H, CH, etc.; R7 = H, alkyl] are prepared and formulated. Compds. I showed HCV polymerase inhibitory activity (data given). E.g., a multi-step synthesis of 11.HCl, starting from 2-bromo-5-nitrotoluene and Me 2-(2-fluoro-4-hydroxyphenyl)-1-cyclohexylbenzimidazole-5-carboxylate, was given.

IT 347168-06-3P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

10724962

L4 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 (prepn. of substituted 1-cyclohexyl-2-phenylbenzimidazole-5-carboxylic
 acids as remedies for hepatitis C)
 RN 347168-06-3 CAPLUS
 CH 1H-Benzimidazole-5-carboxamide, 1-cyclopentyl-2-(9-ethyl-9H-carbazol-3-yl)-
 (9CI) (CA INDEX NAME)



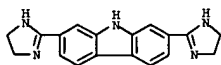
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:173414 CAPLUS
 DOCUMENT NUMBER: 138:215350
 TITLE: Amidine derivatives for treating amyloid-related
 diseases
 INVENTOR(S): Chalifour, Robert J.; Kong, Xianqi; Wu, Xinfu; Lu,
 Wenshuo
 PATENT ASSIGNEE(S): Neurochem Inc., Can.
 SOURCE: PCT Int. Appl., 114 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

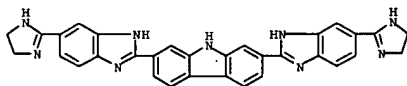
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003017994	A1	20030306	WO 2002-CA1353	20020903
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2455497	AA	20030306	CA 2002-2455497	20020903
US 2004006092	A1	20040108	US 2002-234643	20020903
EP 1420773	A1	20040526	EP 2002-758012	20020903
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
BR 2002012078	A	20040928	BR 2002-12078	20020903
JP 200504053	T2	20050210	JP 2003-522514	20020903
US 2004147531	A1	20040729	US 2003-731463	20031205
PRIORITY APPLN. INFO.:			US 2001-316761P	F 20010831
			US 2002-387001P	P 20020607
			US 2002-234643	A1 20020903
			WO 2002-CA1353	W 20020903

OTHER SOURCE(S): MARPAT 138:215350
 AB The invention discloses the use of amidine compds. in the treatment of amyloid-related diseases (e.g. Alzheimer's disease, Down's syndrome, type II diabetes). In particular, the invention discloses a method for treating or preventing an amyloid-related disease in a subject comprising administering to the subject a therapeutic amount of an amidine compound
 The compds. of the invention (Markush included) are such that, when administered, reduce or inhibit amyloid fibril formation, neurodegeneration, or cellular toxicity. Compound preparation is described.
 IT 200205-81-8 200878-42-8 500714-08-9
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amidine derivs. for treating amyloid-related diseases)
 RN 200205-81-8 CAPLUS

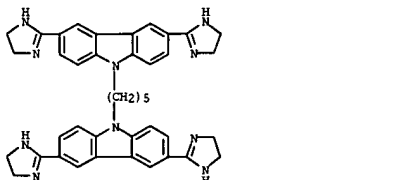
L4 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 200878-42-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

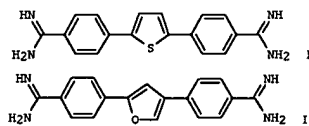


RN 500714-08-9 CAPLUS
 CN 9H-Carbazole, 9,9'-(1,5-pentanediy)bis[3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

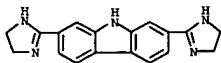
L4 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2002:145280 CAPLUS
 DOCUMENT NUMBER: 136:321920
 TITLE: Antileishmanial activities of several classes of aromatic dicationic
 AUTHOR(S): Brendle, James J.; Outlaw, Abram; Kumar, Arvind; Boykin, David W.; Patrick, Donald A.; Tidwell, Richard R.; Verbovetz, Karl A.
 CORPORATE SOURCE: Division of Experimental Therapeutics, Walter Reed Army Institute of Research, Silver Spring, MD, 20910, USA
 SOURCE: Antimicrobial Agents and Chemotherapy (2002), 46(3), 797-807
 CODEN: AMACQJ; ISSN: 0066-4804
 PUBLISHER: American Society for Microbiology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



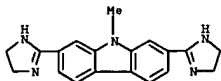
AB Aromatic dicationic mole. possess impressive activity against a broad spectrum of microbial pathogens, including Pneumocystis carinii, Cryptosporidium parvum, and Candida albicans. In this work, 58 aromatic cations were examined for inhibitory activity against axenic amastigote-like Leishmania donovani parasites. In general, the most potent of the compds. were substituted di-Ph furan and thiophene dicationic.
 2,5-Bis-(4-amidinophenyl)thiophene (I) was the most active compound. This agent displayed a 50% inhibitory concentration (IC50) of 0.42 ± 0.08 µM against L. donovani and an in vitro antileishmanial potency 6.2-fold greater than that of the clin. antileishmanial dication pentamidine and was 155-fold more toxic to the parasites than to a mouse macrophage cell line. 2,4-Bis-(4-amidinophenyl)furan (II) was twice as active as pentamidine (IC50, 1.30 ± 0.21 µM), while 2,5-bis-(4-amidinophenyl)furan and pentamidine were essentially equipotent in our in vitro antileishmanial assay. Carbazoles, dibenzofurans, dibenzothienophenes, and benzimidazoles containing amidine or substituted amidine groups were generally less active than the di-Ph furans and thiophenes. In all cases, aromatic dicationic possessing strong antileishmanial activity were several-fold more toxic to the parasites than to a cultured mouse macrophage cell line. These structure-activity relationships demonstrate the potent antileishmanial activity of several aromatic dicationic and provide valuable information for the future design and synthesis of more potent antiparasitic agents.
 IT 200205-81-8 200878-41-7 200878-43-9
 200878-44-0 415717-96-3 415718-04-6
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antileishmanial activities of several classes of aromatic dicationic)

10724962

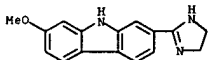
L4 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 200205-81-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



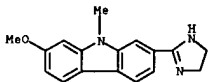
RN 200878-41-7 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)



RN 200878-43-9 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy- (9CI) (CA INDEX NAME)

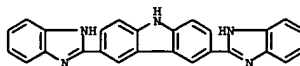


RN 200878-44-0 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-9-methyl- (9CI) (CA INDEX NAME)

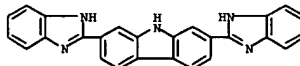


RN 415717-96-3 CAPLUS
 CN 9H-Carbazole, 3,6-bis(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 415718-04-6 CAPLUS
 CN 9H-Carbazole, 2,7-bis(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



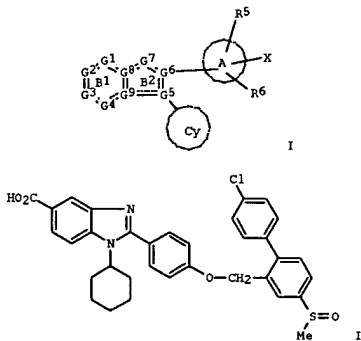
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2001:489367 CAPLUS
 DOCUMENT NUMBER: 135:76874
 TITLE: Preparation of heterocyclic compounds as remedies for hepatitis C
 INVENTOR(S): Hashimoto, Hiromasa; Mizutani, Kenji; Yoshida, Atsuhito
 PATENT ASSIGNEE(S): Japan Tobacco Inc., Japan
 SOURCE: PCT Int. Appl., 438 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001047883	A1	20010705	WO 2000-JP9181	20001222
W: AS, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CH, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2363274	AA	20010705	CA 2000-2363274	20001222
EP 1162196	A1	20011212	EP 2000-987728	20001222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000008525	A	20020102	BR 2000-8525	20001222
TR 200103147	T1	20020621	TR 2001-200103147	20001222
NZ 514403	A	20021025	NZ 2000-514403	20001222
AU 763356	B2	20030717	AU 2001-24017	20001222
RU 2223761	C2	20040220	RU 2001-126283	20001222
NO 2001004134	A	20011022	NO 2001-4134	20010824
US 2003050320	A1	20030313	US 2001-939374	20010824
US 6770666	B2	20040803		
ZA 2001007870	A	20020925	ZA 2001-7870	20010928
US 2004097438	A1	20040520	US 2003-615329	20030708
PRIORITY APPLN. INFO.:			JP 1999-369008	A 19991227
			WO 2000-JP9181	W 20001222
			JP 2000-391904	A 20001225
			JP 2001-193786	A 20010626
			US 2001-939374	A3 20010824

OTHER SOURCE(S): MARPAT 135:76874
 GI

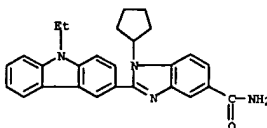
L4 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



AB The title compds. I [the dotted line in rings B1 and B2 indicates a single or double bond; G1 = N, CR1; G2 = N, CR2; G3 = N, CR3; G4 = N, CR4; G5, G6, G8, G9 = C, N; G7 = O, etc.; R1 - R4 = H, nitro, etc.; ring Cy = (un)substituted cycloalkyl ring, etc.; ring A = C3-C8 cycloalkyl, etc. R5, R6 = H, halo, etc.; X = H, cyano, etc.] are prepared. The benzimidazole derivative II in vitro showed IC50 of 0.011 μM against hepatitis C virus polymerase. A formulation is given.

IT 347168-06-3P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of heterocyclic compds. as remedies for hepatitis C)

RN 347168-06-3 CAPLUS
 CN 1H-Benzimidazole-5-carboxamide, 1-cyclopentyl-2-(9-ethyl-9H-carbazol-3-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10724962

L4 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L4 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:605930 CAPLUS

DOCUMENT NUMBER: 133:317223

TITLE: Effects of Compound Structure on Carbazole Dication-DNA Complexes: Tests of the Minor-Groove Complex Models

AUTHOR(S): Tanious, Farial A.; Ding, Daoyuan; Patrick, Donald A.; Bailly, Christian; Tidwell, Richard R.; Wilson, W. David

CORPORATE SOURCE: Department of Chemistry and Laboratory for Chemical and Biological Sciences, Georgia State University, Atlanta, GA, 30303, USA

SOURCE: Biochemistry (2000), 39(39), 12091-12101

CODEN: BICHAU; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Carbazole dications have shown excellent activity against opportunistic infections, but they are quite different in structure from previously studied unfused aromatic cations that function by targeting the DNA minor groove. In a previous report [Tanious, F. A., Ding, D., Patrick, D. A., Tidwell, R. R., and Wilson, W. D. (1997) Biochem. 36, 15315-15325] the authors showed that, despite their fused ring structure, the carbazoles also bind in A/T sequences of the DNA minor groove and the authors proposed models for the carbazole-DNA complexes with the carbazole nitrogen facing out of the groove for 3,6 substituted compds. but into the groove in 2,7 carbazoles. To test and refine the models, carbazole-N-Me substituted derivs. have been synthesized in both the 3,6 and 2,7 series as well as a new 2,6 substituted NH derivative that is intermediate in structure. Footprinting results indicate a broad AT specificity of carbazole binding and a pattern in agreement with a minor groove complex. Surface plasmon resonance biosensor anal. of carbazole binding to an oligomer with an AATT central sequence indicated that the 2,7 NH compound has the largest binding constant. Both the 3,6 NH and NMe compds. bind with similar equilibrium consts. that are less than for the 2,7 NH compound. The

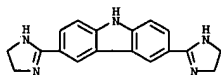
2,7 NMe compound has the lowest binding constant of all the carbazoles. Spectroscopic results are also similar for the two 3,6 derivs. but are quite different for the 2,7 NH and NMe carbazole dications. Structural anal. of carbazole complexes with an AATT sequence by 2D NMR methods also supported a minor groove complex of the carbazoles in orientations in agreement with the previously proposed models. From these results, it is clear that the fused ring carbazoles can bind strongly in the DNA minor groove with a broad A/T specificity and that the 2,7 and 3,6 substituted carbazoles bind to the minor groove in opposite orientations.

IT 200205-80-7 200205-81-8 200878-41-7
 RL: BPA (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (effects of compound structure on carbazole dication-DNA complexes and tests of minor-groove complex models)

RN 200205-80-7 CAPLUS

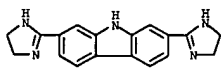
CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



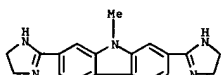
RN 200205-81-8 CAPLUS

CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 200878-41-7 CAPLUS

CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

35

THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:184240 CAPLUS

DOCUMENT NUMBER: 130:209707

TITLE: Preparation of 2-substituted phenyl-benzimidazole antibacterial agents

INVENTOR(S): Ohemeng, Kwasi Adomako; Nguyen, Van Nhatton

PATENT ASSIGNEE(S): Ortho-McNeil Pharmaceutical, Inc., USA

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

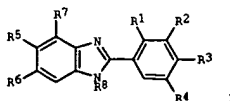
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911627	A1	19990311	WO 1998-US18586	19980904
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, BG, BZ, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CH, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 5942532	A	19990824	US 1997-924558	19970905
AU 9893054	A1	19990322	AU 1998-93054	19980904
PRIORITY APPLN. INFO.: US 1997-924558 A 19970905				
WO 1998-US18586 W 19980904				

OTHER SOURCE(S): HARPAT 130:209707

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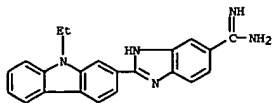
AB Benzimidazoles I [R1 = H, OH, alkoxy; R2, R3, R4 = H, OH, alkyl, CF3, halo, etc.; R5 = H, amino, amidino; R6 = nitro, C(NH2)2; R7 = H, amino, nitro; R8 = H, Me], antibacterial compds., were prepared. These compds. are effective in inhibiting the action of a bacterial histidine protein kinase and are useful as anti-infective agents against a variety of bacterial organisms, including organisms which are resistant to other known antibiotics. E.g., 3,4-diaminobenzimidazole, prepared from 3,4-diaminobenzonitrile, was treated with NH3/EtOH, then with 4-Me3CC6H4CHO to give 2-[4-(1,1-dimethylethyl)phenyl]-2H-benzimidazole-5-carboximidamide.

IT 220955-47-59
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of phenylbenzimidazoles as antibacterial agents)

RN 220955-47-5 CAPLUS

CN 1H-Benzimidazole-5-carboximidamide, 2-[9-ethyl-9H-carbazol-2-yl)- (9CI)

10724962

L4 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(CA INDEX NAME)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:19813 CAPLUS

DOCUMENT NUMBER: 130:90117

TITLE: Comparative efficacy evaluation of dicationic carbazole compounds, nitazoxanide, and paromomycin against *Cryptosporidium parvum* infections in a neonatal mouse model
AUTHOR(S): Blagburn, Byron L.; Drain, Kathryn L.; Land, Tracey M.; Kinard, Rachel G.; Moore, P. Hutton; Lindsey, David S.; Patrick, Donald A.; Boykin, David W.; Tidwell, Richard P.

CORPORATE SOURCE: Department of Pathobiology, College of Veterinary Medicine, Auburn University, Auburn, AL, 36849-5519, USA

SOURCE: Antimicrobial Agents and Chemotherapy (1998), 42(11), 2877-2882

CODEN: AMACQJ; ISSN: 0066-4804
PUBLISHER: American Society for MicrobiologyDOCUMENT TYPE: Journal
LANGUAGE: EnglishAB The efficacies of dicationic carbazole compds., nitazoxanide (NTZ), and paromomycin were evaluated against the AUCp1 isolate of *Cryptosporidium parvum* by using a neonatal mouse model. Compds. were solubilized or suspended in deionized water and administered orally by gavage to neonatal mice at a constant dose rate on days 0 to 5 (treatment started on day 0). Dose rates varied for individual carbazole compds. but ranged from 0.65 to 20 mg/kg of body weight. NTZ was tested at 100 and 150 mg/kg, and paromomycin

was tested at 50 mg/kg. Efficacies were determined by comparing nos. of oocysts present in treated vs. control mice at necropsy examination on day 6.

Demonstrable efficacy was observed for several carbazole compds., based on significant redns. in the nos. of oocysts recovered from treated mice vs. control mice. Compds. 1, 7, and 10 (19.0 mg/kg) reduced oocyst passage in treated mice to less than 5% of that in control mice. Treatment with compds. 6, 8, and 9 (17.0 mg/kg) resulted in redns. of oocyst output to less than 10% of that in controls. Although they were not comparable in efficacy to compds. 1, 6, 7, 8, 9, and 10, treatment with other carbazole compds. resulted in statistically significant redns. in oocyst output in treated vs. control mice. Compound 1 retained efficacy resulted in reduction of

oocyst output to approx. 6% of that in controls when the dose was reduced to 5 mg/kg. Further redns. in the dose rate resulted in considerable redns. in anticryptosporidial activity. Likewise, the efficacies of compds. 9 and 10 were reduced substantially when the doses were lowered to one-half the screening dose. Paromomycin yielded excellent activity (reduction of oocyst output to <2% of that in controls) at a dose of 50 mg/kg.

NTZ yielded moderate efficacy as powder and injectable formulations administered at 100 mg/kg orally (reduction of oocyst output to 42 and 26% of

that in controls, resp.). Oral administration of the injectable formulation of NTZ at a dose of 150 mg/kg resulted in improved efficacy (oocyst output, <5% of that in controls).

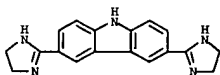
IT 186192-89-2 186192-90-5 186192-91-6
186192-94-9 186192-96-1 200878-55-3

L4 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

200878-57-5 200878-58-6 219483-73-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)(comparative efficacy evaluation of dicationic carbazole compds. and nitazoxanide and paromomycin against *Cryptosporidium parvum* infections in a neonatal mouse model)

RN 186192-89-2 CAPLUS

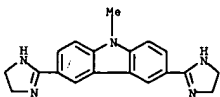
CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 186192-90-5 CAPLUS

CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

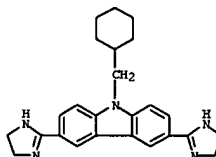


●2 HCl

RN 186192-91-6 CAPLUS

CN 9H-Carbazole, 9-(cyclohexylmethyl)-3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

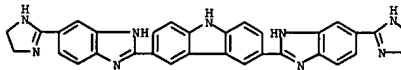
L4 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



●2 HCl

RN 186192-94-9 CAPLUS

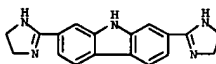
CN 9H-Carbazole, 3,6-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 186192-96-1 CAPLUS

CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)



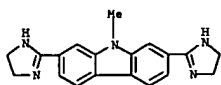
●2 HCl

RN 200878-55-3 CAPLUS

CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

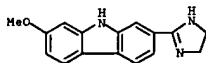
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L4 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



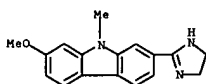
● 2 HCl

RN 200878-57-5 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 200878-58-6 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-9-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 219483-73-5 CAPLUS
 CN 9H-Carbazole, 2,7-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]-9-methyl-, tetrahydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1398:664986 CAPLUS

DOCUMENT NUMBER: 130:22621

TITLE: In vitro antifungal activities of a series of dication-substituted carbazoles, furans, and benzimidazoles

AUTHOR(S): Del Poeta, Maurizio; Schell, Wiley A.; Dykstra, Christine C.; Jones, Susan K.; Tidwell, Richard R.; Kumar, Arvind; Boykin, David W.; Perfect, John R.

CORPORATE SOURCE: Department of Medicine, Division of Infectious Diseases and International Health, Duke University Medical Center, Durham, NC, 27710, USA

SOURCE: Antimicrobial Agents and Chemotherapy (1998), 42(10), 2503-2510

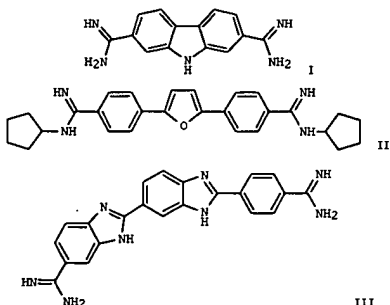
CODEN: AMACQJ ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

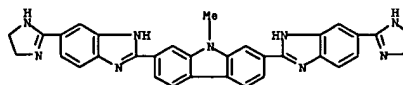


AB Aromatic dicationic compds. possess antimicrobial activity against a wide range of eucaryotic pathogens, and in the present study an examination of the

structures-functions of a series of compds. against fungi was performed. Sixty-seven dicationic mols. were screened for their inhibitory and fungicidal activities against *Candida albicans* and *Cryptococcus neoformans*. The MICs of a large number of compds. were comparable to those of the standard antifungal drugs amphotericin B and fluconazole. Unlike fluconazole, potent inhibitory compds. in this series were found to have excellent fungicidal activities. Broad-spectrum activities were observed

for the carbazole I, the furan II, and the benzimidazole III. The MIC of III, one of the most potent compds., against *C. albicans* was 0.39 µg/mL, and it was the most potent compound against *C. neoformans* (MIC, ≤0.09

L4 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● 4 HCl

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

µg/mL). Selected compds. were also found to be active against *Aspergillus fumigatus*, *Fusarium solani*, *Candida species* other than *C. albicans*, and fluconazole-resistant strains of *C. albicans* and *C. neoformans*. Since these compds. have been safely given to animals, these classes of mols. have the potential to be developed as antifungal agents.

IT 200205-80-7 200205-81-8 200878-35-9

200878-36-0 200878-39-3 200878-41-7

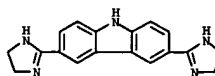
200878-42-8 200878-43-9 200878-44-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(in vitro antifungal activities of a series of dication-substituted carbazoles, furans, and benzimidazoles)

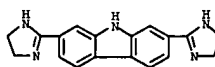
RN 200205-80-7 CAPLUS

CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



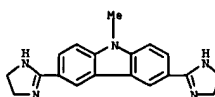
RN 200205-81-8 CAPLUS

CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 200878-35-9 CAPLUS

CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)

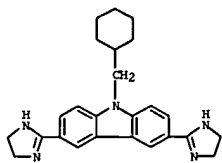


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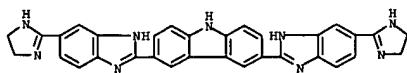
CN 9H-Carbazole, 9-(cyclohexylmethyl)-3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

10724962

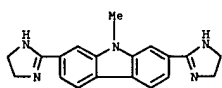
L4 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



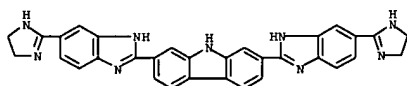
RN 200878-39-3 CAPLUS
 CN 9H-Carbazole, 3,6-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 200878-41-7 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)



RN 200878-42-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 200878-43-9 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy- (9CI) (CA INDEX NAME)

L4 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:159773 CAPLUS

DOCUMENT NUMBER: 128:241723

TITLE: Identification and characterization of an endo/exonuclease in *Pneumocystis carinii* that is inhibited by dicationic diarylfurans with efficacy against *Pneumocystis pneumonia*
 AUTHOR(S): Hildebrandt, Ellen; Boykin, David W.; Kumar, Arvind; Tidwell, Richard R.; Dykstra, Christine C.
 CORPORATE SOURCE: Department of Pathobiology, College of Veterinary Medicine, Auburn University, Auburn, AL, 36849, USA
 SOURCE: Journal of Eukaryotic Microbiology (1998), 45(1), 112-121
 CODEN: JEMIED; ISSN: 1066-5234
 PUBLISHER: Society of Protozoologists
 DOCUMENT TYPE: Journal
 LANGUAGE: English

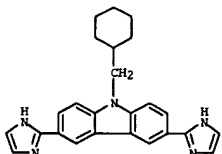
AB Dicationic diarylfurans and dicationic carbazoles are under development as therapeutic agents against opportunistic infections. While their ability to bind to the minor groove of DNA has been established, the complete mechanism of action has not. We demonstrate here that an effective diarylfuran, 2,5-bis[4-(N-isopropylguanyl)phenyl]furan, inhibits an endo/exonuclease activity present in *Pneumocystis carinii*, *Cryptococcus neoformans*, *Candida albicans*, and *Saccharomyces cerevisiae*. This activity was purified from the particulate fraction of *P. carinii*. The enzyme requires Mg²⁺ or Mn²⁺, and shows preferences for single- over double-stranded DNA and for AT-rich over GC-rich domains. A panel of 12 dicationic diarylfurans and eight dicationic carbazoles, previously synthesized, were evaluated for inhibition of the purified nuclease and for efficacy against *Pneumocystis pneumonia* in rats. Among the diarylfurans, potency of nuclease inhibition, in vivo antimicrobial activity, and DNA binding strength were all strongly correlated ($p < 0.001$). These findings suggest that one target for antimicrobial action of the diarylfurans may be a nucleolytic or other event requiring unpairing of DNA strands. Dicationic carbazoles which were strong nuclease inhibitors all displayed anti-*Pneumocystis* activity in vivo, but there were also noninhibitory carbazoles with in vivo efficacy.

IT 205122-88-9
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

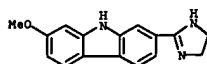
(fungicidal activity of dicationic carbazoles against *Pneumocystis carinii*)

RN 205122-88-9 CAPLUS

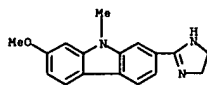
CN 9H-Carbazole, 9-(cyclohexylmethyl)-3,6-di-1H-imidazol-2-yl- (9CI) (CA INDEX NAME)



L4 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 200878-44-0 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-9-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

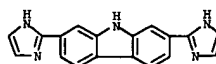
IT 205122-86-7 205122-87-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(identification and characterization of an endo/exonuclease in *Pneumocystis carinii* that is inhibited by dicationic diarylfurans with efficacy against *Pneumocystis pneumonia*)

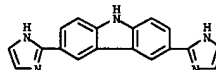
RN 205122-86-7 CAPLUS

CN 9H-Carbazole, 2,7-di-1H-imidazol-2-yl- (9CI) (CA INDEX NAME)



RN 205122-87-8 CAPLUS

CN 9H-Carbazole, 3,6-di-1H-imidazol-2-yl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

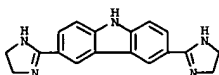
ACCESSION NUMBER: 1997153570 CAPLUS
 DOCUMENT NUMBER: 128184031
 TITLE: Anti-Pneumocystis carinii pneumonia activity of dicationic carbazoles
 AUTHOR(S): Patrick, D. A.; Boykin, D. W.; Wilson, W. D.; Tanious, F. A.; Spychala, J.; Bander, B. C.; Hall, J. E.; Dykstra, C. C.; Ohemeng, K. A.; Tidwell, R. R.
 CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599, USA
 SOURCE: European Journal of Medicinal Chemistry (1997), 32(10), 781-793
 CODEN: EJMCAS; ISSN: 0223-5234
 PUBLISHER: Editions Scientifiques et Medicales Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB A series of 2,7- and 3,6-bis cationic carbazoles was synthesized and evaluated for activity against a rat model of Pneumocystis carinii pneumonia (PCP). The compds. were also tested for inhibition of topoisomerase II and binding to DNA. Several of the compds. proved to be more potent and less toxic than a standard anti-PCP drug (pentamidine).

While no quant. correlation was seen between anti-PCP activity, topoisomerase inhibition and DNA binding, a minimal level of DNA binding was found to be necessary for antimicrobial activity.

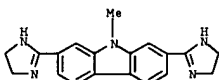
IT 200205-80-7P 200205-81-8P 200878-35-9P
 200878-36-0P 200878-39-3P 200878-41-7P
 200878-42-8P 200878-43-9P 200878-44-0P
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and antibacterial activity against Pneumocystis carinii pneumonia of dicationic carbazoles)
 RN 200205-80-7 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

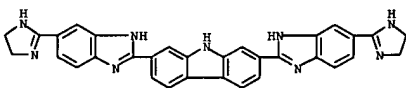


RN 200205-81-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

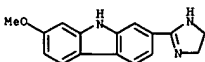
L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



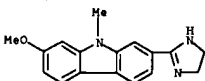
RN 200878-42-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis(5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 200878-43-9 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy- (9CI) (CA INDEX NAME)

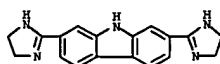


RN 200878-44-0 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-9-methyl- (9CI) (CA INDEX NAME)

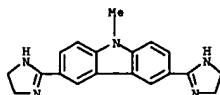


IT 186192-89-2P 186192-90-3P 186192-91-6P
 186192-94-9P 186192-96-1P 200878-55-3P
 200878-56-4P 200878-57-5P 200878-58-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and antibacterial activity against Pneumocystis carinii pneumonia of dicationic carbazoles)
 RN 186192-89-2 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

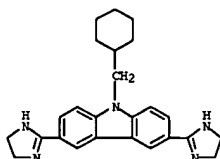
L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



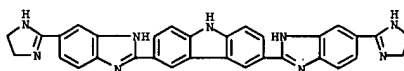
RN 200878-35-9 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)



RN 200878-36-0 CAPLUS
 CN 9H-Carbazole, 9-(cyclohexylmethyl)-3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

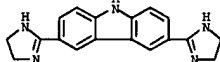


RN 200878-39-3 CAPLUS
 CN 9H-Carbazole, 3,6-bis(5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



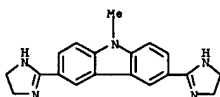
RN 200878-41-7 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)

L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



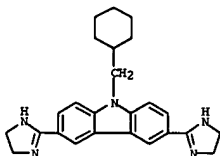
● 2 HCl

RN 186192-90-5 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 186192-91-6 CAPLUS
 CN 9H-Carbazole, 9-(cyclohexylmethyl)-3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

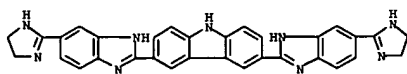


● 2 HCl

RN 186192-94-9 CAPLUS
 CN 9H-Carbazole, 3,6-bis(5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl)-, tetrahydrochloride (9CI) (CA INDEX NAME)

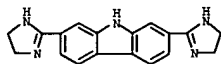
10724962

L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



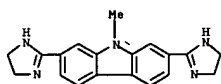
● 4 HCl

RN 186192-96-1 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

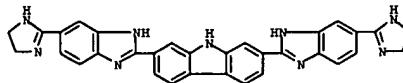
RN 200878-55-3 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

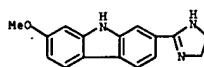
RN 200878-56-4 CAPLUS
 CN 9H-Carbazole, 2,7-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



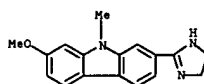
● 4 HCl

RN 200878-57-5 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 200878-58-6 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)-7-methoxy-9-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

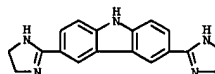
L4 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:734666 CAPLUS
 DOCUMENT NUMBER: 128:57097
 TITLE: A New Type of DNA Minor-Groove Complex: Carbazole Dication-DNA Interactions
 AUTHOR(S): Tanious, Farial A.; Ding, Daoyuan; Patrick, Donald A.; Tidwell, Richard R.; Wilson, W. David
 CORPORATE SOURCE: Department of Chemistry and Laboratory for Chemical and Biological Sciences, Georgia State University, Atlanta, GA, 30303, USA
 SOURCE: Biochemistry (1997), 36(49), 15315-15325
 CODEN: BICHAW; ISSN: 0006-2960
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The effect of opportunistic infections (OI) on immune-compromised populations has been known for decades, but the recent AIDS epidemic has sparked renewed interest in the development of new anti-OI agents. The mechanism of action of a series of cationic unfused-aromatic anti-OI drugs

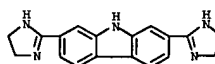
is believed to involve binding of the drug to AT sequences in the minor groove of DNA. Some new anti-OI drug candidates have been synthesized with fused aromatic ring systems (e.g. carbazoles) that do not resemble the classical paradigm for minor-groove interactions at AT sequences in DNA. To characterize the DNA interactions of these compds., we have used UV vis absorbance, fluorescence, kinetic measurements, and CD in conjunction with NMR spectroscopy to evaluate the structure of the complexes formed between the carbazoles and DNA. Application of these methods to carbazoles substituted at either the 3,6 or 2,7 positions with cationic imidazoline groups gave conclusive, but very surprising, evidence that both compds. bind strongly in the minor groove at AT DNA sequences. NMR and mol. modeling of the complexes formed between the 3,6- and 2,7-carbazoles and the self-complementary oligomer d(GCGAATTGCG) have been used to establish structural details for the minor-groove complex. These results have been used as constraints for mol. modeling calcns. to construct models of the minor-groove-carbazole complexes and to draw conclusions regarding the mol. basis for the effects of substituent position on carbazole-DNA affinities. The surprising result is that the 2,7 carbazole binds in AT sequences with hydrogen bonds involving one imidazoline group and the carbazole NH. The 3,6-carbazole compound binds in a more "classical" model that uses both imidazoline groups for H-bonding while the carbazole NH points out of the minor groove. The carbazoles thus form a new type of DNA minor groove complex and their excellent biol. activities indicate that a variety of fused-ring minor-groove binding agents should be investigated.

IT 200205-80-7 200205-81-8
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process)
 (carbazole dication-DNA minor groove interactions)
 RN 200205-80-7 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 200205-81-8 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10724962

L4 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1997:140712 CAPLUS

DOCUMENT NUMBER:

126:128101

TITLE:

Synthesis of Depurinating DNA Adducts Formed by One-Electron Oxidation of 7H-Dibenzo[c,g]Carbazole and Identification of These Adducts after Activation with Rat Liver Microsomes

AUTHOR(S):

Chen, Liang; Devanesan, Prabu D.; Byun, Jaeman; Gooden, Jonathan K.; Gross, Michael L.; Rogan, Eleanor G.; Cavalleri, Ercole L.

CORPORATE SOURCE:

Epplery Institute for Research in Cancer, University of Nebraska Medical Center, Omaha, NE, 68198-6805, USA

SOURCE:

Chemical Research in Toxicology (1997), 10(2), 225-233
CODEN: CRTOCX ISSN: 0893-228X

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB It is hypothesized that 7H-dibenzo[c,g]carbazole (DBC) is metabolically activated by one-electron oxidation in accordance with its propensity to be easily oxidized to its radical cation. Iodine oxidation of DBC produces a radical cation that subsequently binds to nucleophilic groups of dG or Ade. Oxidation of DBC in the presence of dG produces three adducts: DBC-5-N7Gua, DBC-6-N7Gua, and DBC-6-C8Gua, whereas in the presence of Ade, four adducts are obtained: DBC-5-N7Ade, DBC-5-N3Ade, DBC-5-N1Ade, and DBC-6-N3Ade. Formation of these adducts demonstrates that the DBC radical cation reacts at C-5 or C-6 with the reactive nucleophiles N-7 and C-8 of dG and N-7, N-3, and N-1 of Ade. Formation of DNA adducts by DBC was studied by using horseradish peroxidase or 3-methylcholanthrene-induced rat liver microsomes for activation. Identification of the biol.-formed depurinating adducts was achieved by comparison of their retention times on HPLC in two different solvent systems and by matrix-assisted laser desorption ionization (MALDI) mass spectrometry. Quantitation of the adducts formed by rat liver microsomes shows that 96% are depurinating adducts, DBC-5-N7Gua (11%), DBC-6-N7Gua (32%), and DBC-5-N7Ade (53%), and 4% are unidentified stable adducts. Activation of DBC by horseradish peroxidase affords 32% stable unidentified adducts and 68% depurinating adducts: 19% DBC-5-N7Gua, 13% DBC-6-N7Gua, 27% DBC-5-N7Ade, and 9% DBC-5-N3Ade. Thus, activation of DBC by cytochrome P 450 predominantly forms depurinating adducts by one-electron oxidation

IT 186336-49-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

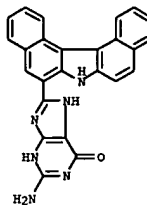
(preparation of depurinating DNA adducts formed by one-electron oxidation of

dibenzocarbazole)

RN 186336-49-2 CAPLUS

CN 6H-Purin-6-one, 2-amino-8-(7H-dibenzo[c,g]carbazol-6-yl)-1,7-dihydro-(9CI) (CA INDEX NAME)

L4 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

1997:134847 CAPLUS

DOCUMENT NUMBER:

126:139862

TITLE:

Methods of inhibiting Pneumocystis carinii pneumonia and compounds useful therefor

INVENTOR(S):

Tidwell, Richard R.; Hall, James E.; Boykin, David W. University of North Carolina At Chapel Hill, USA;

PATENT ASSIGNEE(S):

Georgia State University Research Foundation, Inc.; Tidwell, Richard R.; Hall, James E.; Boykin, David W. PCT Int. Appl., 39 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640114	A1	19961219	WO 1996-US8464	19960603
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5668166	A	19970916	US 1995-474440	19950607
AU 9661486	A1	19961230	AU 1996-61486	19960603
EP 831813	A1	19980401	EP 1996-919040	19960603
EP 831813	B1	20050119		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11506763	T2	19990615	JP 1996-501062	19960603
AT 287263	E	20050215	AT 1996-919040	19960603
PRIORITY APPLN. INFO.:			US 1995-474440	A 19950607
			WO 1996-US8464	V 19960603

OTHER SOURCE(S):

MARPAT 126:139862

AB The present invention provides methods for treating Pneumocystis carinii pneumonia by administering carbazole derivs. or a pharmaceutically acceptable salt thereof. For example, 3,6-bis(2-imidazolyl)carbazole dihydrochloride (I) prepared from 3,6-dicyanocarbazole and ethylenediamine dihydrochloride, was given to rat model of P. carinii pneumonia. A lung homogenate of the rats was prepared and cysts were counted in vitro to show anti-P. carinii activity; I was significantly more potent than the control drug, pentamidine.

IT 186192-89-2P 186192-90-5P 186192-91-6P

186192-94-9P 186192-96-1P

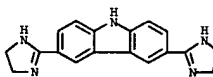
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of carbazole derivs. for inhibiting Pneumocystis carinii pneumonia)

RN 186192-89-2 CAPLUS

CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

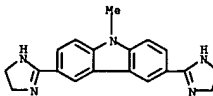
L4 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● 2 HCl

RN 186192-90-5 CAPLUS

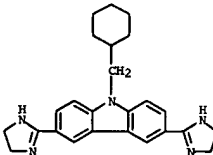
CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 186192-91-6 CAPLUS

CN 9H-Carbazole, 9-(cyclohexylmethyl)-3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)



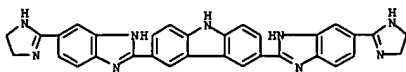
● 2 HCl

RN 186192-94-9 CAPLUS

CN 9H-Carbazole, 3,6-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

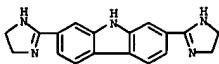
10724962

L4 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



● 4 HCl

RN 186192-96-1 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

L4 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:116541 CAPLUS

DOCUMENT NUMBER: 126:117865

TITLE: Preparation of amidinocarbazoles as microbicides
 INVENTOR(S): Tidwell, Richard R.; Hall, James E.; Boykin, David W.; Dykstra, Christine C.; Perfect, John R.; Blagburn, Byron L.

PATENT ASSIGNEE(S): University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation, Inc.; Duke University; Auburn University; Tidwell, Richard R.; Hall, James E.; Boykin, David W.; Dykstra, Christine C.; Perfect, John R.; Blagburn, Byron L.

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

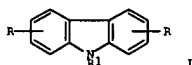
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640117	A1	19961219	WO 1996-US8972	19960603
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GE, HU, IL, IS, JP, KR, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NG, NZ, PL				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5668167	A	19970916	US 1995-477876	19950607
AU 9660460	A1	19961230	AU 1996-60460	19960603
EP 831811	A1	19980401	EP 1996-918120	19960603
EP 831811	B1	20031119		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11506776	T2	19990615	JP 1996-501405	19960603
AT 254462	E	20031215	AT 1996-918120	19960603
ES 2211958	T3	20040716	ES 1996-918120	19960603
PRIORITY APPLN. INFO.:			US 1995-477876	A 19950607
			US 1995-474440	A1 19950607
			WO 1996-US8972	W 19960603
OTHER SOURCE(S):		MARPAT 126:117865		
GI				



AB Title compds. [I: R = halo, alkyl, alkoxy, aryl, C(NR2)NR2R3; R1 = halo, alkyl, aryl, etc.; R2 = H, alkyl, aryl, etc.; R3 = H, OH, alkyl, aryl,

L4 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

etc.] were prepd. Thus, 3,6-dibromocarbazole was converted to 3,6-diamidinocarbazole dihydrochloride in 2 steps. Data for biol. activity of I were given.

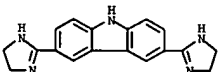
IT 186192-89-2P 186192-90-5P 186192-91-6P

186192-94-9P 186192-96-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

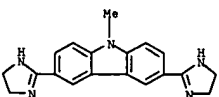
(preparation of amidinocarbazoles as microbicides)

RN 186192-89-2 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

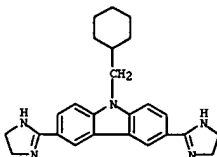
RN 186192-90-5 CAPLUS
 CN 9H-Carbazole, 3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

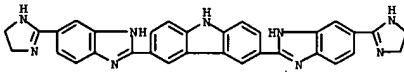
RN 186192-91-6 CAPLUS
 CN 9H-Carbazole, 9-(cyclohexylmethyl)-3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

L4 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



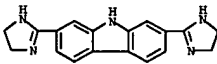
● 2 HCl

RN 186192-94-9 CAPLUS
 CN 9H-Carbazole, 3,6-bis[5-(4,5-dihydro-1H-imidazol-2-yl)-1H-benzimidazol-2-yl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



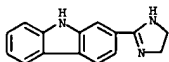
● 4 HCl

RN 186192-96-1 CAPLUS
 CN 9H-Carbazole, 2,7-bis(4,5-dihydro-1H-imidazol-2-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

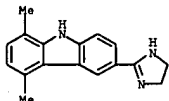


● 2 HCl

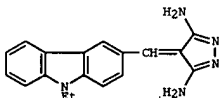
L4 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1996:202910 CAPLUS
 DOCUMENT NUMBER: 124:249664
 TITLE: Selective Inhibitors of Monoamine Oxidase. 3. Structure-Activity Relationship of Tricyclics Bearing Imidazoline, Oxadiazole, or Tetrazole Groups
 AUTHOR(S): Harfenist, Morton; Heuser, Darryl J.; Joyner, Charles T.; Batchelor, John F.; White, Helen L.
 CORPORATE SOURCE: Divisions of Organic Chemistry and Pharmacology, Wellcome Research Laboratories, Research Triangle Park, NC, 27709, USA
 SOURCE: Journal of Medicinal Chemistry (1996), 39(9), 1857-63
 CODEN: JMCHAM; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Inhibition of monoamine oxidase A (MAO A) is believed to cause antidepressant and possibly anti-anxiety effects. The previous paper had developed structure-activity relations (SAR) for in vitro MAO A inhibition by tricyclic N-arylamides. It is shown in this paper that the same in vitro SAR can be carried over to tricyclics whose potentially toxic amide function is replaced by an appropriately substituted imidazoline, a 1,2,4- or 1,3,4-oxadiazole, or an alkylated tetrazole moiety. Dialysis of the inhibitor from the enzyme was used as a measure of reversibility which correlates with a low ability to cause a blood pressure rise with ingested tyramine ("cheese effect").
 IT 175293-09-1P 175293-10-4P 175293-11-5P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (structure-monoamine oxidase-inhibiting activity relations of tricyclics with imidazolines or azoles)
 RN 175293-09-1 CAPLUS
 CN 9H-Carbazole, 2-(4,5-dihydro-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



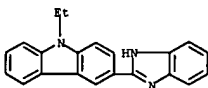
RN 175293-10-4 CAPLUS
 CN 9H-Carbazole, 6-(4,5-dihydro-1H-imidazol-2-yl)-1,4-dimethyl- (9CI) (CA INDEX NAME)



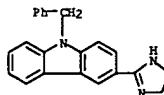
L4 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1995:954422 CAPLUS
 DOCUMENT NUMBER: 124:146013
 TITLE: Facile synthesis of novel carbazoles through heterocyclization reactions and their antimicrobial activity
 AUTHOR(S): Berghot, Maged Ahmed; Badawy, Doria Saleh; Moawad, Evelin Boshra
 CORPORATE SOURCE: Chemistry Department, Mansoura University, Mansoura, Egypt
 SOURCE: Revue Roumaine de Chimie (1995), 40(4), 377-86
 CODEN: RECHAX; ISSN: 0035-3930
 PUBLISHER: Editura Academiei Romane
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB 9-Ethylcarbazole binary attached to the position 3 with heterocyclic systems such as pyrazole, pyrazolinone, pyrazoline, thiazolidinone, azetidinone, triazoline, benzimidazole, benzoxazole, benzothiazole, oxazolidinone, thiouracil and furan were synthesized. The structures of the synthesize compds. have been confirmed by anal. and spectral methods. Pyrazole I showed antimicrobial activity against Bacillus subtilis and Escherichia coli.
 IT 173463-46-2P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of carbazoles through heterocyclization reactions and their antimicrobial activity)
 RN 173463-46-2 CAPLUS
 CN 9H-Carbazole, 3-(1H-benzimidazol-2-yl)-9-ethyl- (9CI) (CA INDEX NAME)

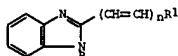


L4 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RN 175293-11-5 CAPLUS
 CN 9H-Carbazole, 3-(4,5-dihydro-1H-imidazol-2-yl)-9-(phenylmethyl)- (9CI) (CA INDEX NAME)

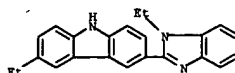


L4 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1985:140734 CAPLUS
 DOCUMENT NUMBER: 102:140734
 TITLE: Photosensitive drum for electrophotography
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXKAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59075257	A2	19840427	JP 1982-186377	19821023
PRIORITY APPLN. INFO.:				
JP 1982-186377 19821023				



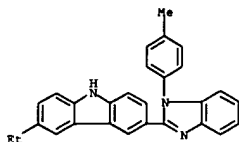
AB An electrophotog. material has a supported photoconductive layer containing 21 compound selected from benzimidazole derivs. having the general formula I (R = lower alkyl, Bz, Ph; n = 0, 1; R1 = Ph, aromatic group, heterocyclic group that may be substituted by lower alkyl, halo, lower alkoxy, lower alkylamino, benzylamino, phenylamino that may be substituted). The claimed benzimidazole derivs. are good charge-transporting agents. Thus, a 1-μ charge-generating layer was formed on an Al layer deposited on a polyester support by coating a THF solution containing Diane Blue (CI Pigment Blue, CI 21160) 76 and a polyester (Vylon 200; Toyobo) 25.2 weight parts. Similarly, a charge-transport layer was formed by coating a polycarbonate resin (Panlite K1130; Teijin Chems.) 2 and 1-methyl-2-phenylbenzimidazole II 2 weight parts dissolved in THF.
 The obtained electrophotog. material was corona-charged to -1482 V, and its sensitivity (for half decay of voltage) was 18.2 lx-s.
 IT 95640-69-9 95640-69-0
 RL: USES (Uses)
 (charge-transport layer containing, for electrophotog. materials)
 RN 95640-69-9 CAPLUS
 CN 9H-Carbazole, 3-ethyl-6-(1-ethyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



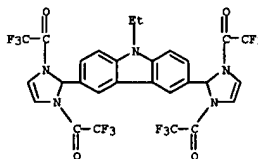
RN 95640-69-0 CAPLUS

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L4 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CN 9H-Carbazole, 3-ethyl-6-[1-(4-methylphenyl)-1H-benzimidazol-2-yl]- (9CI)
 (CA INDEX NAME)



L4 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1981:156678 CAPLUS
 DOCUMENT NUMBER: 94:156678
 TITLE: Synthesis of aromatic aldehydes via 2-aryl-N,N'-diacyl-4-imidazolines
 AUTHOR(S): Bergman, Jan; Renstroem, Lars; Sjoerberg, Birger
 CORPORATE SOURCE: Dep. Org. Chem., R. Inst. Technol., Stockholm, S-100 44/70, Swed.
 SOURCE: Tetrahedron (1980), 36(17), 2505-11
 CODEN: TETRA; ISSN: 0040-4020
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 94:156678
 AB Diacylimidazolium ions, formed by treating imidazole and benzimidazole with Ac2O or trihaloacetic anhydrides, reacted with indole, thiophene, PhOMe and/or m-xylene to give N,N'-diacyl-2-aryl-4-imidazolines, which were converted to aromatic aldehydes on alkaline hydrolysis. E.g., reaction of imidazole with Ac2O and indole (125°, 30 min) gave 72% 1,3-diacetyl-2-(3-indolyl)-4-imidazoline, which was hydrolyzed (NaOH, EtOH/H2O), reflux, 1 h) to 3-formylindole (88%).
 IT 77145-01-8P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 77145-01-8 CAPLUS
 CN 1H-Imidazole, 2,2'-(9-ethyl-9H-carbazole-3,6-diyl)bis(2,3-dihydro-1,3-bis(trifluoroacetyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1980:102294 CAPLUS
 DOCUMENT NUMBER: 92:102294
 TITLE: Electrophotographic photosensitive materials
 INVENTOR(S): Sasaki, Masaomi; Ohta, Masafumi; Tsutsui, Kyoji; Hashimoto, Mitsuru; Sakai, Kiyoshi; Kazami, Takeo
 PATENT ASSIGNER(S): Ricoh Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54061936	A2	19790518	JP 1977-128448	19771026
			JP 1977-128448	A 19771026

PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

AB Charge-carrier-transferring agents for electrophotog. photosensitive materials are selected from the following groups of compds. (1) Compds. of the general formulas I and II (R = H, alkyl, acetyl, cycloalkyl; R1 = alkyl, R2 = alkyl, acetyl; R3 = H, alkyl). (2) Compds. of the general formula IV (R4, R5 = Ph or Ph group substituted with 21 of halo, amino, Cl-4 alkyl, OH, Cl-4 alkoxy substituents; R6, R7 = H, Cl-4 alkyl, Ph, substituted phenyl; Z = O, S). (3) Compds. of the general formula IV (R8 = H, alkyl, alkenyl, aralkyl, aralkenyl, aryl, substituted aryl, heterocyclic moiety; R9, R10 = Ph, substituted Ph). (4) Compds. of general formulas V, VI, VII, and VIII (R11 = aminophenyl, alkylaminophenyl; R12 = Ph, substituted Ph; R13 = H, alkyl, alkenyl, heterocyclic moiety; R14, R15 = Ph, substituted Ph; 1 of R14 and R15 is alkylaminophenyl or aminophenyl; R16 = H, alkyl). (5) Compds. of the general formula IX (Z1 = group of atoms required to form aromatic ring; Z2 = O, S, NR17 (R17 = H, alkyl, aryl, aralkyl); R18 = aromatic or heterocyclic moiety). (6) Compds. of the general formula R19CONHR:CR2OR21 (R19 = H, alkyl, aralkyl, aryl, substituted aryl, aromatic heterocyclic moiety; R20 = aralkyl, aryl, substituted aryl, aromatic heterocyclic moiety; R21 = H, alkyl, aryl, substituted aryl; R20R21 in combination may complete a C ring together with the C atom). (7) Compds. of the general formula R22CH:CR23R24 (R22 = aromatic C ring, aromatic heterocyclic moiety, styryl; R23 = H, acyl, amino; R24 = aromatic C ring moiety, aromatic heterocyclic moiety, carboalkoxy, carboamido).

CN. (8) Compds. of the formula X (R25, R26 = aromatic or heterocyclic moiety, R27 = H, aliphatic moiety; R28 = H, aromatic moiety, heterocyclic moiety). (9) Compds. of the formula XI (R29, R30 = H, Cl-6 alkyl, branched alkyl (56 C atoms in the longest chain)). (10) The compound XII. And (11) compds. of the general formula XIII (R31 = Me, Et, Pr, MeO; R32 = Cl, MeO; m = 0, 1; n = 0, 1, 2) or XIV (R33 = Me, Et, MeO; R34 = Cl, MeO; m = 0, 1; n = 0, 1, 2). Thus, an electrophotog. plate prepared by using Diene Blue (as the charge-carrier-generating pigment) and 2,5-bis[4-(ethylamino)phenyl]-1,3,4-triazole (as the charge-carrier-transfer agent) had a EI/2 sensitivity of 4.1 lx.s.

IT 71727-52-1

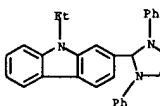
RL: USES (Uses)

(electrophotog. charge carrier transfer agent)

RN 71727-52-1 CAPLUS

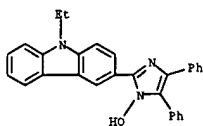
CN 9H-Carbazole, 2-(1,3-diphenyl-2-imidazolidinyl)-9-ethyl- (9CI) (CA INDEX NAME)

L4 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

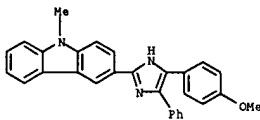


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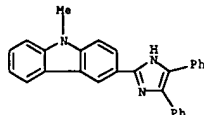
L4 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1972:457559 CAPLUS
 DOCUMENT NUMBER: 77:57559
 TITLE: Imidazoles. III. Pesticidal screening of some substituted 1-hydroxyimidazoles
 AUTHOR(S): Allan, G. G.; Chopra, C. S.; Mattila, T.
 CORPORATE SOURCE: Coll. Forest Resour., Univ. Washington, Seattle, WA, USA
 SOURCE: Pesticide Science (1972), 3(2), 153-9
 CODEN: PSSCBG; ISSN: 0031-613X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The screening of 30 substituted 1-hydroxyimidazoles I (R = Me, Et or Ph; R1 = 2-, 3-, or 4-HOC6H4, 3- or 4-BrC6H4, 3- or 4-OZNC6H4, 2-furyl, 2-thienyl, 5-chloro-2-thienyl, 2-pyrryl, 3-pyridyl, or 3,4-methylenedioxy-2-phenyl) as herbicides, anthelmintics, insecticides, bacteriostats, fungicides, coccidiostats, and nematocides disclosed a broad spectrum of biological activity in all but 2 compds. The most pesticidally active imidazoles carried an interdiazal benzenoid or heterocyclic aromatic ring substituent with a phenolic or potentially phenolic group attached thereto. The most susceptible insect was *Musca domestica*, for which 15 compds., such as 1-hydroxy-2-(3-hydroxyphenyl)-4,5-dimethylimidazole [35375-32-7], or 1-hydroxy-2-(3,4-methylenedioxyphenyl)-4,5-dimethylimidazole [35375-33-8] functioned as contact toxicants with 50% mortalities at distribution levels of 1.5 µg/cm².
 IT 39020-42-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (pesticidal activity of)
 RN 39020-42-3 CAPLUS
 CN 9H-Carbazole, 9-ethyl-3-(1-hydroxy-4,5-diphenyl-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



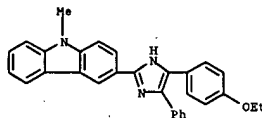
L4 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1972:434423 CAPLUS
 DOCUMENT NUMBER: 77:34423
 TITLE: Synthesis of 4,5-diaryl-2-(N-methylcarbazol-3-yl)- and 4,5-diaryl-2-(N-methyl-1,2,3,4-tetrahydrocarbazol-7-yl)imidazolyl radicals
 AUTHOR(S): Tanaseichuk, B. S.; Zhivechkova, L. A.
 CORPORATE SOURCE: Mord. Gos. Univ., Saransk, USSR
 SOURCE: Khimiya Geterotsiklicheskih Soedinenii (1971), 7(11), 1550-1
 CODEN: KGSSAQ; ISSN: 0132-6244
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 GI For diagram(s), see printed CA issue.
 AB PhCOCOC6H4R-p were treated with carbazolecarboxaldehydes to give the imidazoles (I, R = H, Br, MeO, EtO, Me, and II R = H, MeO, EtO) (50-70%). Radicals were obtained by oxidation of I and II with PbO₂ in CHCl₃.
 IT 37068-03-4P 37068-04-5P 37126-85-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 37068-03-4 CAPLUS
 CN 9H-Carbazole, 3-(4,5-diphenyl-1H-imidazol-2-yl)-9-methyl- (9CI) (CA INDEX NAME)



RN 37068-04-5 CAPLUS
 CN 9H-Carbazole, 3-[4-(4-ethoxyphenyl)-5-phenyl-1H-imidazol-2-yl]-9-methyl- (9CI) (CA INDEX NAME)



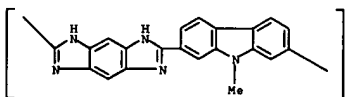
RN 37126-85-5 CAPLUS
 CN 9H-Carbazole, 3-[4-(4-methoxyphenyl)-5-phenyl-1H-imidazol-2-yl]-9-methyl- (9CI) (CA INDEX NAME)

L4 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1971:126501 CAPLUS
 DOCUMENT NUMBER: 74:126501
 TITLE: Thermostable polybenzimidazoles
 INVENTOR(S): Naarmann, Herbert; Eisert, Manfred; Schaffner, Ernst; Willersinn, Herbert
 PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik AG
 SOURCE: Ger. Offen., 10 pp.
 CODEN: GWXKX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1943499	A	19710304	DE 1969-1943499	19690827
FR 2059035	A5	19710528	FR 1970-30576	19700820
NL 7012558	A	19710302	NL 1970-12558	19700825
GB 1310738	A	19730321	GB 1970-41003	19700826
			DE 1969-1943499	A 19690827

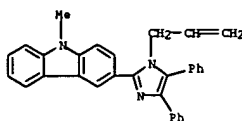
PRIORITY APPLN. INFO.:
 AB High-mol.-weight tear-resistant title polymers useful as coatings or insulating materials were prepared by 1:1 condensation of aromatic tetramino compds., e.g. 1,2,4,5-(H₂N)₄C₆H₂.4HCl (I) or 2,3,6,7-tetramino-9,10-anthraquinone.4HCl, with aromatic dinitrile, dialdehyde, or bis(dihalomethyl) compds., e.g. (p-NCC₆H₄)₂O, p-(NC)₂C₆H₄ (II), p-(OHC)₂C₆H₄, (p-OHCC₆H₄)₂NMe, or 1,4-bis(dichloromethyl)-2,5-dichlorobenzene. Thus, 28.2 parts I was added to 12.8 parts II in 100 parts polyphosphoric acid at 50°. Stirring 5 hr at 75°, precipitation with H₂O, and 3 hr drying at 150° gave a polybenzimidazole of 0.8 dl/g intrinsic viscosity at 25° in cresol.

IT 32075-75-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 32075-75-5 CAPLUS
 CN Poly[(9-methyl-9H-carbazole-2,7-diyl)(1,5-dihydrobenzo[1,2-d:4,5-d']imidazole-2,6-diyl)] (9CI) (CA INDEX NAME)



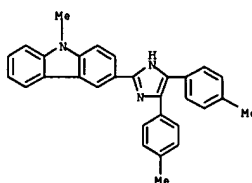
L4 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1965:400618 CAPLUS
 DOCUMENT NUMBER: 63:80619
 ORIGINAL REFERENCE NO.: 63:14846f-h,14847a
 TITLE: Monomers and polymers. V. Polymerizable fluorescent heterocycles
 AUTHOR(S): Drefahl, Guenther; Winnefeld, Klaus
 CORPORATE SOURCE: Friedrich Schiller Univ., Jena, Germany
 SOURCE: Journal fuer Praktische Chemie (Leipzig) (1965), 28(5-6), 236-41
 CODEN: JPCEAO; ISSN: 0021-8383
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 GI For diagram(s), see printed CA Issue.
 AB cf. CA 63, 14729c. A series of polymerizable imidazoles (I and II) and 2,3-bis(p-vinylphenyl)quinoxaline (III) were prepared for use in scintillation counters. The appropriate 1,2-diketones (0.01 mol), 0.01 mol suitable aldehyde, 2.0 g. dry NH₄OAc, and 2 g. CH₂:CHCH₂NH₂ in 100 cc. dry AcOH refluxed 3 h. and basified with cooling with NH₄OH yielded the corresponding I. In this manner were prepared the following compds. (I yield and m.p. given): 4,5-diphenyl-1-allyl-2-(4-stilbenyl)imidazole (IV), 48, 211-12°; 2-(p-PhC₆H₄) analog of IV, 89, 172-4°; 2-(3-carbazolyl) analog of IV, 52, 212-13°; 2-(4-tolanyl) analog of IV, 28, 202-3°; 4,4'-bis(1-allyl-4,5-diphenyl-2-imidazolyl)tolan, 34, 190-2°; 4,5-bis(4-biphenyl)-1-allyl-2-(4-biphenyl)imidazole, 50, 178°; 1,4-bis[2-(4-vinylphenyl)-4,5-diphenyl-1-imidazolyl]benzene, 28, 409-10° (decomposition). The appropriate benzoin (0.01 mol) and 0.01 mol p-CH₂:CHC₆H₄CHO in 200 cc. MeOH heated 45 min. on the water bath with 4 g. Cu(OAc)₂ in 40 cc. concentrated NH₄OH and the resulting Cu salt resuspended in 100 cc. refluxing 50% EtOH and decomposed with H₂S yielded the corresponding II (R, m.p., and % yield given): p-MeC₆H₄, 250-2° (MeNO₂ and chromatographed on Al₂O₃), 39; p-PhC₆H₄, 239-41° (MeNO₂ or C₆H₆), 30; 2-furyl, 194-6° (aqueous EtOH and chromatographed on Al₂O₃), 35. o-C₆H₄(NH₂)₂ (5 g.) and 5 g. tolil in 100 cc. EtOH refluxed 3.5 h. gave 7.7 g. 2,3-di(p-tolyl)quinoxaline (V), m. 144-5° (EtOH). V (7.7 g.), 8.7 g. N-bromosuccinimide, and 0.2 g. Bz₂O₂ in 100 cc. CCl₄ heated 3 h. gave 9.2 g. crude dibromo derivative; a 4.5-g. fraction and 9 g. Ph₃P in 80 cc. absolute HCONMe₂ refluxed 6 h. and diluted with Et₂O gave 7 g. diposphonium bromide, m. >310°; a 2.7-g. portion treated with 0.2N LiOEt and then with CH₂O in 90 cc. absolute EtOH gave 700 mg. III, m. 149-52°. The uv maximum and extinction coeffs. of the various imidazole derivs. and III are given.
 IT 3719-79-7, Carbazole, 3-(1-allyl-4,5-diphenylimidazol-2-yl)-9-methyl- (preparation of)
 RN 3719-79-7 CAPLUS
 CN Carbazole, 3-(1-allyl-4,5-diphenylimidazol-2-yl)-9-methyl- (7CI, 8CI) (CA INDEX NAME)

L4 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1964:404208 CAPLUS
 DOCUMENT NUMBER: 61:4208
 ORIGINAL REFERENCE NO.: 61:651c-h
 TITLE: Syntheses of conjugated imidazoles
 AUTHOR(S): Drefahl, Guenther; Schermer, Werner
 CORPORATE SOURCE: Friedrich-Schiller Univ., Jena, Germany
 SOURCE: Journal fuer Praktische Chemie (Leipzig) (1964), 23(5-6), 225-33
 CODEN: JPCEAO; ISSN: 0021-8383
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 GI For diagram(s), see printed CA Issue.
 AB Several I, II, and III were prepared for use as scintillators and optical brighteners. Tolil (IV) (4 g.), 2.8 g. p-PhC₆H₄CHO (V), and 10 g. NH₄OAc (VI) in 150 cc. AcOH refluxed 2 hrs. gave 82% I (Ar = p-PhC₆H₄), needles, m. 256° (C₆H₆). IV (4 g.), 3.5 g. N-methylcarbazole-3-carboxaldehyde, and 10 g. VI gave similarly 75% I (Ar = N-methyl-3-carbazolyl), m. 353-4° (decomposition) (C₅H₅N). p-C₆H₄(CHO)₂ (VII) (1 g.), 3.14 g. Bz₂ and 8 g. VI in 200 cc. AcOH refluxed 2 hrs. yielded 80% II (R = Ph, R' = H) (VIII), yellow needles, m. 410-12° (decomposition) (C₅H₅N). Similarly were prepared the following II (R, R' crystal form, m.p. (decomposition), and % yield given): Ph, Ph (IX), pale yellow needles, 388-90° (PhNO₂), 60; p-MeC₆H₄, Ph, yellow-orange needles, 314-15° (MeNO₂), 62; p-MeOC₆H₄, Ph, yellow needles, 312-14° (MeNO₂), 65; p-PhC₆H₄, H (X), yellow needles, 350-2° (xylene and C₅H₅N); p-PhCH:CHC₆H₄, H (XI), yellow needles, 319-20° (HCONMe₂). VII (1 g.), 2.9 g. p-H₂NCH₂CH:CHPh, and 50 cc. AcOH refluxed 0.5 hr. gave p-C₆H₄(CH:NC₆H₄CH:CHPh)₂, yellow leaflets, m. 338° with sintering at 316° (PhNO₂). 1,4,5-Triphenyl-2-methylimidazole (XII) (10 g.), 6 g. N-bromosuccinimide, and 0.1 g. Bz₂O₂ in 100 cc. dry CCl₄ refluxed 0.5 hr., treated with 8 g. Ph₃P, heated on the water bath, and kept overnight yielded 30% triphenyl(1,4,5-triphenyl-2-methylimidazolyl)-phosphonium bromide-EtOH (XIII), leaflets, m. 155° and 249-50° (reptd. from EtOH with Et₂O). XIII (2 g.) and 1 g. BzH in 70 cc. absolute EtOH treated under argon with 6.5 cc. 0.4M NaOEt-EtOH and refrigerated overnight gave 53% 1,4,5-triphenyl-2-styrylimidazole (XIV), needles, m. 211-12°. XII (7.5 g.), 5 cc. BzH, and 10 cc. Ac₂O heated 10 hrs. at 210-15° in a sealed tube gave 65% XIV, yellowish needles, m. 210-11° (EtOH). XIII (2 g.) and 1 g. V in 100 cc. absolute EtOH with 6.5 cc. 0.4M NaOEt-EtOH gave 55% III (Ar = p-PhC₆H₄) (XV), yellow needles, m. 255-6° (EtOH or AcOEt). XII (7.5 g.), 4.5 g. V, and 15 cc. Ac₂O heated 10 hrs. at 210-15° in a sealed tube gave 48% XV, m. 255° (AcOEt). XIII (3 g.) and 0.7 g. p-O₂NC₆H₄CHO in 100 cc. absolute EtOH treated overnight with 10 cc. 0.5M NaOEt-EtOH yielded 65% III (Ar = p-O₂NC₆H₄) (XVI), red-orange needles, m. 242-4° (BuOH). XIII (3 g.) and 0.95 g. p-PhCH:CHC₆H₄CHO with 100 cc. absolute EtOH and 10 cc. 0.5M NaOEt-EtOH yielded 41% III (Ar = p-PhCH:CHC₆H₄) (XVII), yellow crystals, m. 265-6° (BuOH). XIII (2 g.) and 1.5 g. 1-ClO₂CHO in 70 cc. absolute EtOH with 6.5 cc. 0.5M NaOEt-EtOH gave 55% III (Ar = 1-ClO₂) (XVIII), yellow needles, m. 236-7° (EtOH). The ultraviolet spectra of VIII, IX, X, XI, XIV, XV, XVI, XVII, and XVIII are recorded, and the spectral properties of these compds. are discussed.
 IT 96367-35-0, Carbazole, 3-(4,5-di-p-tolylimidazol-2-yl)-9-methyl- (preparation of)
 RN 96367-35-0 CAPLUS
 CN Carbazole, 3-(4,5-di-p-tolylimidazol-2-yl)-9-methyl- (7CI) (CA INDEX NAME)

L4 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L4 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1962:54010 CAPLUS
 DOCUMENT NUMBER: 56:54010
 ORIGINAL REFERENCE NO.: 56:10334d-1, 10335a-c
 TITLE: Material for electrographic reproduction
 INVENTOR(S): Sues, Oskar; Schlesinger, Heinz
 PATENT ASSIGNEE(S): Kalle A.-G.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1116057		19611026	DE	19580809
US 3127266		1964	US	

AB The use of 1,3-diphenyltetrahydroimidazole derivs. as photoconducting materials in insulation layers for electrographic reproduction is described. PhNHCH₂CH₂NHPh (I) (4.7 g.) in 65 cc. MeOH containing 2 cc. 34% aqueous H₂CO and a few drops 50% AcOH refluxed 5 min., cooled, and filtered gave 1,3-di phenyltetrahydroimidazole (II), m. 123-4° (MeOH). Similarly were prepared the following 2-substituted derivs. of II (2-substituent and m.p. given): Me, 100-1° (MeOH); Et, 109-10° (MeOH); Pr, 82° (MeOH); iso-Pr, 95-6° (MeOH); MeCH₂CH, 132° (MeOH); PhCH₂, 86-7° (MeOH); PhCH₂CH₂, 143-4° (MeOH); PhCH₂CH, 119-20° (MeOH-C₆H₅); Ph, 135° (MeOH); p-MeC₆H₄, 128-30° (MeOH); p-MeOC₆H₄, 163-4° (C₆H₆-MeOH); 3,4-(MeO)₂C₆H₃, 88-9° (EtOAc); 4,3-HO(MeO)₂C₆H₃, 171° (MeOH); 3,4-HO(MeO)₂C₆H₃, 169-70° (C₆H₆-MeOH); 2,3-HO(MeO)₂C₆H₃, 185-6° (C₆H₆-MeOH); o-HOC₆H₄, 117° (MeOH); m-HOC₆H₄, 104-5° (MeOH); p-HOC₆H₄, 145-6° (MeOH) (pale yellow); 2,5-HO(Me)₂C₆H₃, 142° (MeOH); 3,4-(CH₂O)₂C₆H₃, 159-60° (EtOH); o-ClC₆H₄, 125-6° (MeOH); m-ClC₆H₄, 92-3° (MeOH); p-ClC₆H₄, 155-6° (MeOH); 2,6-Cl₂C₆H₃, 203-4° (C₆H₆-MeOH); o-O₂NC₆H₄, 140° (C₆H₆-MeOH) (yellow); m-O₂NC₆H₄, 114° (C₆H₆-MeOH) (yellow); p-O₂NC₆H₄, 142° (EtOAc-ilgroeine) (yellow); 3,6,2-Cl₂(O₂N)₂C₆H₂, 162-3° (EtOH) (yellow); 5,2-Cl₂(O₂N)₂C₆H₂, 196-7° (C₆H₆-MeOH) (yellow); p-Me₂NC₆H₄ (III), 146-7° (MeOH); 2,4-Cl(Me₂N)₂C₆H₃, 177-8° (EtOAc); p-EtNHC₆H₄, 179° (MeOH-C₆H₆); p-Et₂NHC₆H₄, 160-1° (EtOAc); p-(ClCH₂CH₂)₂NHC₆H₄, 162° (MeOH-C₆H₆); p-(ClCH₂CH₂NHPh)₂C₆H₄, 162-3° (C₆H₆-MeOH); p-PhCH₂NHC₆H₄, 122-4° (MeOH-C₆H₆); p-(PhCH₂)₂NHC₆H₄, 156-7° (EtOAc); p-PhC₆H₄, 144-5° (C₆H₆-MeOH); 1-ClOH₇, 190-1° (C₆H₆-MeOH); 2,1-EtOC₁₀H₆, 189-90° (C₆H₆-MeOH); 2-anthraquinonyl, 235° (C₆H₆-MeOH) (orange); 3-pyrenyl, 204-5° (EtOAc); 2-furyl, 133-4° (MeOH); 2-pyridyl, 175-6° (MeOH); 3-pyridyl, 144-5° (EtOH); 4-pyridyl, 150-2° (EtOH); 2-quinolyl, 158-60° (MeOH); 4-quinolyl, 192-3° (C₆H₆); and 9-ethyl-3-carbazolyl, 180° (C₆H₆-MeOH). Similarly were prepared the N,N'-di-p-tolyl analogs of II (same data given): Ph, 167°; 3,4-(MeO)₂C₆H₃, 105°; p-Me₂NC₆H₄, 189°; 2,4-Cl(Me₂N)₂C₆H₃, 158-60°; p-EtNHC₆H₄, 171-2°; p-Et₂NHC₆H₄, 146°; p-(ClCH₂CH₂)₂NHC₆H₄, 152°; p-(ClCH₂CH₂NHPh)₂C₆H₄, 165° (EtOAc); p-[p-EtOC₆H₄N(Me)]₂C₆H₄, 107-8°; p-PhCH₂N(Me)₂C₆H₄, 164°; p-(PhCH₂)₂NHC₆H₄, 192°; 2-ClOH₇, 176°; 2-pyridyl, 215°; 3-pyridyl, 169°; 4-pyridyl, 173°; 2-quinolyl, 186°; and

L4 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 4-quinolyl, 157°, all recrystd. from MeOH-C₆H₆ except where noted otherwise. Similarly were prepd. the following N,N'-bis(p-chlorophenyl) analogs of II (same data given): Ph, 139°; 3,4-(MeO)₂C₆H₃, 119°; 3,4-Me(MeNH)₂C₆H₃, 185-6° (EtOH-C₆H₆); p-Me₂NC₆H₄, 185°; 2,4-Cl(Me₂N)₂C₆H₃, 211°; p-Et₂NHC₆H₄, 174°; p-(ClCH₂CH₂)₂NHC₆H₄, 181°; p-PhCH₂N(Me)₂C₆H₄, 150°; p-(PhCH₂)₂NHC₆H₄, 187°; p-[p-EtOC₆H₄N(Me)]₂C₆H₄, 142-3°; p-ClCH₂CH₂N(Ph)₂C₆H₄, 202-3° (EtOAc); 2-ClOH₇, 183-4°; 9-anthracenyl, 228-30° (CHCl₃) (light yellow); 2-pyridyl, 179°; 3-pyridyl, 122°; 4-pyridyl, 204°; 2-quinolyl, 199°; 4-quinolyl, 175°, all recrystd. from MeOH-C₆H₆ except where noted otherwise. Similarly was obtained from 0.6 g. (p-O₂NC₆H₄NHCH₂)₂ and 0.5 g. Et₃N the yellow 1,3-bis(p-nitrophenyl)-2-phenyltetrahydroimidazole, m. 269°. Similarly were prepd. N-methyl - [p,p'-bis(1,3-diphenyltetrahydro-2-imidazolyl)diphenylamine (IV), m. 213° (C₆H₆-MeOH), from 1.4 g. I and 0.8 g. (p-OHCC₆H₄)₂NMe; 1,4-bis(1,3-diphenyltetrahydro-2-imidazolyl)benzene, m. 267-70° (C₆H₆) from 2.7 g. p-C₆H₄(CHO)₂ and 4.7 g. I; 2,6-bis(1,3-diphenyltetrahydro-2-imidazolyl)pyridine, m. 255-7° (PhMe), from 1.6 g. 2,6-pyridinedicarboxaldehyde and 4.7 g. I; and the 1,3-bis(p-ClC₆H₄) analog of IV, m. 255-6° (C₆H₆-MeOH), from 1.9 g. (p-ClC₆H₄NHCH₂)₂ and 0.8 g. (p-OHCC₆H₄)₂NMe. All I and analogs are colorless except where stated otherwise. III (1 g.) and 1 g. unsapon. ketone-aldehyde condensation resin (Kunstharz AP) in 30 cc. MeOCH₂CH₂OH or C₆H₆ coated on paper and evapd., and the paper foil charged electrostatically, exposed, dusted with a soot-resin mixt., and warmed gave a duplicate of the master.
 IT 296769-78-3, Carbazole, 3-(1,3-diphenyl-2-imidazolidinyl)-9-ethyl- (preparation of)
 RN 296769-78-3 CAPLUS
 CN 9H-Carbazole, 3-(1,3-diphenyl-2-imidazolidinyl)-9-ethyl- (9CI) (CA INDEX NAME)

